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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their problems. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS Supplements I-XI. (JN)

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Water

Water Quality Instructional Resources Information System

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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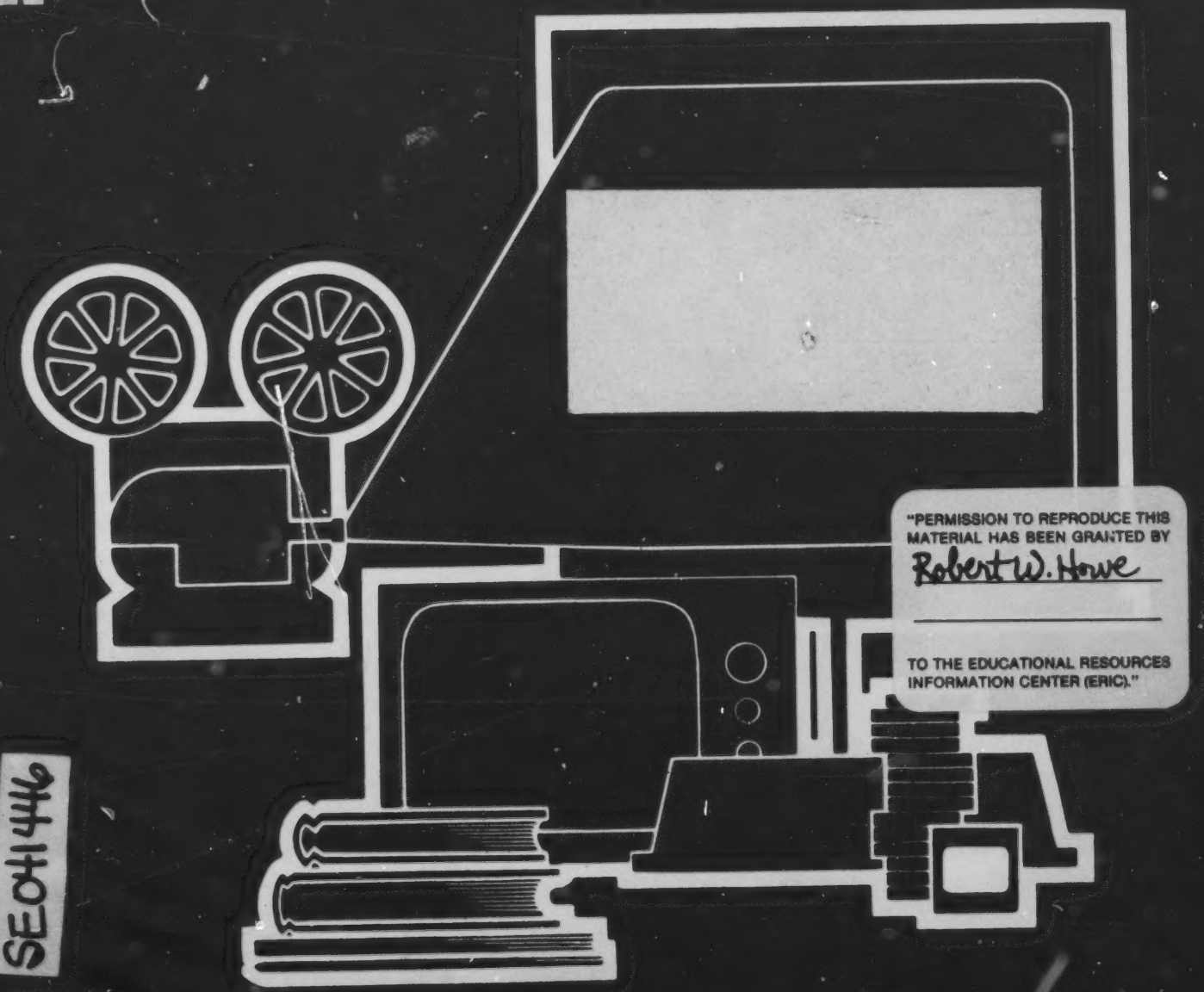

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Prepared by

EPA Instructional Resources Center
SMEAC Information Reference Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to Water Quality and Water Resources Materials

Supplement XII (1982)
December, 1982

This project has been financed (in part) with Federal funds from the U.S. Environmental Protection Agency, Office of Water Program Operations, under grant identification number T-901366010. The contents do not necessarily reflect the views and policies of the U.S. Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Instructional Resources Center. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Instructional Resources Center.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1981-82 is $12.00 (within the U.S.). Price to Canada is $14.00. Prices in other Countries is $20.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through the Bibliographic Retrieval Services, Inc., (BRS) and with Dialog. Any search service that currently subscribes to BRS or Dialog is able to search the IRIS data base by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to BRS or Dialog and do their own searches if they desire.

Information regarding BRS may be obtained by writing or phoning BRS, 1200 Route 7, Latham, NY 12110, (518) 783-1161.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Instructional Resources Center.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright but most users of the tapes gain access to them through three major database vendors: Dialog, Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for $0.03 per page plus $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
2214 North Central at Encanto
Phoenix, Arizona 85004
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $8.00 for each article and $10.00 for articles published prior to January 1981. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(800) 521-0600

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

   a. IRIS NUMBER: EW006023
   b. PUBLICATION DATE: FEB 81
   c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
   d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
   e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

   f. DESCRIPTIVE NOTE: 30-33P.
   g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.

   h. AVAILABILITY: POLLUTION ENGINEERING; V12 N2

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

   f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed. The price of the material quoted is the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained.

2. Sample resume of material entered into ERIC (Resources in Education)

Items entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664
PUBLICATION DATE: 80
TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.
DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT.

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS OF
a. WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index or Author Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals
If you need help in using the IRIS manuals, phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

See section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS.

Contact: Bibliographic Retrieval Services, Inc.
1200 Route 7
Latham, New York 12110
(518) 783-1161

3. Subscribing to Dialog for computer searching of IRIS.

Contact: Dialog Information Retrieval Service
3460 Hillview Avenue
Palo Alto, California 94304
(415) 858-3775

4. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee.)

The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center plans to develop some user service products in selected areas in 1982.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education
The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, NW, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
Huntington Hall
150 Marshall Street
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California at Los Angeles (UCLA)
Mathematical Sciences Building, Room 8118
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
3520 Prospect Street, NW
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teacher of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics and Environmental Education
The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education (AACTE)
One Dupont Circle, NW, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels, all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service (ETS)
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

P. ERIC Clearinghouse on Urban Education
Teachers College, Columbia University
Institute for Urban and Minority Education
Box 40
525 West 120th Street
New York, New York 10027
Telephone: (212) 678-3433

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college encrance (including the effect of self concept, motivation, and other affective influences), education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education (NIE)
Information Resources Division
1200 - 19th Street, NW
Washington, DC 20208
Telephone: (202) 254-5500

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. or Dialog. As IRIS becomes available through other sources, information relevant to those services will be provided.

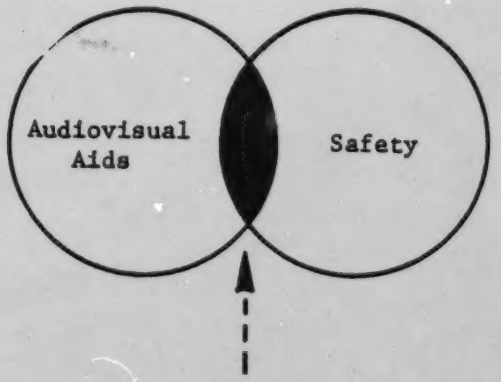
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW Number), (2) ERIC Accession Number (ED Number), (3) Authors, (4) Institution, (5) Title, (6) Subject index terms, and (7) Abstracts.

If you submit a search of IRIS through BRS or Dialog, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) title field, (2) subject index field, and (3) abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this techniqu, you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

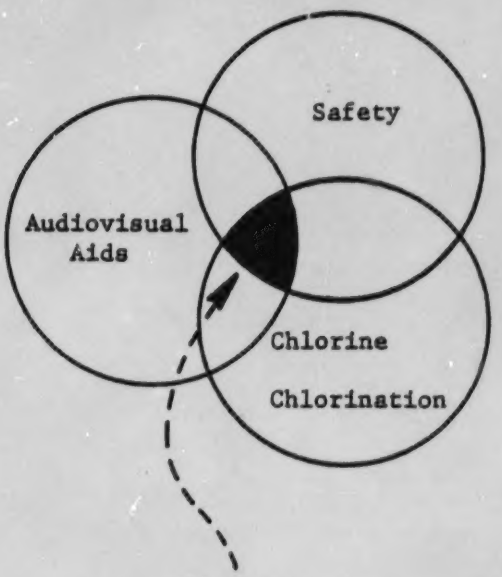
Several sample searches are listed below and on the following pages.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract and the subject index field would be identified by computer.

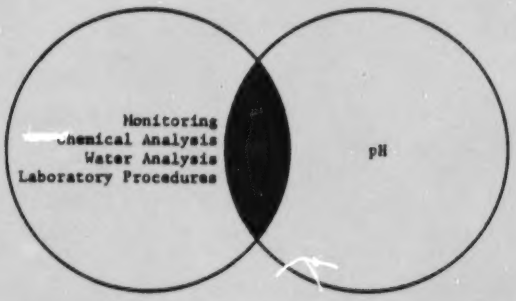


The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.



B. Sample 2 Items Identified

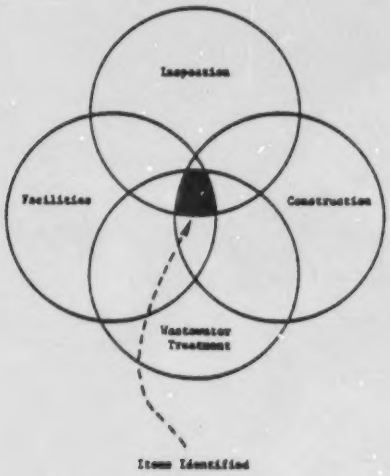
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that is in the subject index.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on loan or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office are available from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for $1.00 per document plus $0.03 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW005544
PUBLICATION DATE: 80

TITLE: HANDBOOK OF ENVIRONMENTAL HEALTH AND SAFETY. PRINCIPLES AND PRACTICES. VOLUME 2.

PERSONAL AUTHOR: KOREN, HERMAN

DESCRIPTOR: AIR QUALITY MANAGEMENT; ECOLOGY; *ENVIRONMENTAL HEALTH; *ENVIRONMENTAL SAFETY; HANDBOOKS; *INSTRUCTIONAL MATERIALS; *OCCUPATIONAL HEALTH; PLUMBING; PUBLIC HEALTH; SEWAGE DISPOSAL; SOLID WASTE MANAGEMENT; *SAFETY; *TEXTBOOKS; WATER POLLUTION; WATER QUALITY; *WATER RESOURCES; WATER SUPPLY

DESCRIPTIVE NOTE: 755P. PRICE: $25.00

ABSTRACT: THIS IS THE SECOND VOLUME OF A BOOK DESIGNED TO PROVIDE A SOLID WORKING KNOWLEDGE OF ENVIRONMENTAL HEALTH AREAS WITH SUFFICIENT DETAIL FOR PRACTITIONERS. THE TEXT CAN BE USED IN BASIC COLLEGE COURSES IN ENVIRONEMTNAL HEALTH, ENVIRONMENTAL POLLUTION, ECOLOGY, AND THE ENVIRONMENT AND MAN. THIS HANDBOOK PROVIDES A COMPREHENSIVE, CONCISE DISCUSSION OF THE FOLLOWING ENVIRONMENAL HEALTH TOPICS: AIR QUALITY MANAGEMENT, SOLID WASTE MANAGEMENT, PRIVATE AND PUBLIC WATER SUPPLIES, SWIMMING AREAS, PLUMBING, PRIVATE AND PUBLIC SEWAGE DISPOSAL AND SOILS, WATER POLLUTION AND WATER QUALITY CONTROLS, AND ENVIRONMENTAL HEALTH EMERGENCIES, NUISANCE COMPLAINTS, AND SPECIAL PROBLEMS. EACH OF THE ABOVE CHAPTERS INCLUDES A SUMMARY AND A DISCUSSION ON RESEARCH NEEDS.

AVAILABILITY: PERGAMON PRESS INC., MAXWELL HOUSE, FAIRVEIW PARK ELMSFORD, NEW YORK 10523

IRIS ACCESSION NUMBER: EW006563

PUBLICATION DATE: AUG 80

TITLE: CHLORINATION SYSTEM COMPONENTS - PANEL BOOK FOR PRE & POST-TESTS.

PERSONAL AUTHOR: HARTMANN, ED

DESCRIPTOR: *CHLORINATION; *DISINFECTION; *EVALUATION; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *TESTS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS IS THE PANEL BOOK FOR PRE-AND POST-TESTS FOR CHLORINATION SYSTEM COMPONENTS. THE PANEL BOOK PRESENTS PICTURES OF VARIOUS PIECES OF EQUIPMENT RELATED TO CHLORINATION AND DESINFECTION PROCESSES AND KEEP THEM TO TEST QUESTIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007244
PUBLICATION DATE: AUG 80

TITLE: CHANGING ONE TON CONTAINERS - STUDENT WORKBOOK, PRE-TEST, INSTRUCTOR GUIDE AND POST-TEST.

PERSONAL AUTHOR: HARTMANN, ED

DESCRIPTOR: *CHLORINE; *CHLORINE CONTAINERS; *DISINFECTION; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *TEACHING GUIDES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 17P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: INCLUDED IN THESE MATERIALS ARE A STUDENT WORKBOOK, INSTRUCTOR GUIDE, PRE-TEST, AND POST-TEST FOR CHANGING ONE TON CHLORINE CONTAINERS. THE LESSON IS DESIGNED TO FIT INTO THE COURSE SEQUENCE. THIS PRESENTATION OF THE MODULE IS DESIGNED FOR APPROXIMATELY ONE HOUR.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007311

TITLE: COMPOSTING TOILETS/PRIVY.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ALTERNATIVE TECHNOLOGY; *BIBLIOGRAPHIES; *COMPOSTING TOILETS; *ONSITE WASTEWATER TREATMENT; *PRIVYS; *WASTE DISPOSAL

ABSTRACT: THIS IS A SHORT BIBLIOGRAPHY ON COMPOSTING TOILETS AND PRIVYS. EACH ENTRY CONTAINS BIBLIOGRAPHIC INFORMATION, AN ANNOTATION AND THE SOURCE OF THE PUBLICATION.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007312

PUBLICATION DATE: 81

TITLE: GREYWATER SYSTEMS.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ALTERNATIVE TECHNOLOGY; *BIBLIOGRAPHIES; *GREYWATER; *HOMES; *ONSITE WASTEWATER TREATMENT; *WATER REUSE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WASTEWATER DISPOSAL

DESCRIPTIVE NOTE: 5P.

ABSTRACT: THIS IS A SHORT BIBLIOGRAPHY ON GREYWATER. EACH ENTRY CONTAINS BIBLIOGRAPHIC INFORMATION, AN ANNOTATION, AND THE SOURCE OF THE PUBLICATION.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007313

PUBLICATION DATE: 81

TITLE: WATER CONSERVATION AND REUSE.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *CONSERVATION; *ONSITE WASTEWATER TREATMENT; *RECYCLING; *WATER REUSE; *WASTE DISPOSAL; *WATER CONSERVATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 15P.

ABSTRACT: THIS IS A SHORT BIBLIOGRAPHY ON WATER CONSERVATION AND REUSE. EACH ENTRY CONTAINS BIBLIOGRAPHIC INFORMATION, AN ANNOTATION, AND THE SOURCE OF THE PUBLICATION.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007314

PUBLICATION DATE: 81

TITLE: SEPTAGE.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *ONSITE WASTEWATER TREATMENT; *SEPTIC TANKS; *SEPTAGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 4P.

ABSTRACT: THIS IS A SHORT BIBLIOGRAPHY ON SEPTAGE. EACH ENTRY CONTAINS BIBLIOGRAPHIC INFORMATION, AN ANNOTATION, AND THE SOURCE OF THE PUBLICATION.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007315

PUBLICATION DATE: 81

TITLE: PRESSURE SEWERS.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *PRESSURE SEWERS; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 6P.

ABSTRACT: THIS IS A SHORT BIBLIOGRAPHY ON PRESSURE SEWERS. EACH ENTRY CONTAINS BIBLIOGRAPHIC INFORMATION, AN ANNOTATION, AND THE SOURCE OF THE PUBLICATION.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007316

PUBLICATION DATE: 81

TITLE: WASTEWATER MODIFICATION.

DESCRIPTOR: *INFLUENTS; *GREYWATER; *HOLDING TANKS; *INSTRUCTIONAL MATERIALS; *ONSITE WASTEWATER DISPOSAL; *POLLUTANTS; *POST SECONDARY EDUCATION; *RELIABILITY; *WASTEWATER TREATMENT; *WASTEWATER DISPOSAL; *WATER CONSERVATION

DESCRIPTIVE NOTE: 26P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH THE MODIFICATION OF WASTEWATER INFLUENTS TO ENHANCE ONSITE TREATMENT AND DISPOSAL/REUSE SYSTEMS. SECTIONS INCLUDED IN THE PUBLICATION ARE WATER CONSERVATION AND WASTEWATER FLOW REDUCTION, POLLUTANT MASS REDUCTION, ONSITE CONTAINMENT (HOLDING TANKS), RELIABILITY, IMPACTS OF ONSITE TREATMENT AND DISPOSAL PRACTICES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007317

PUBLICATION DATE: 81

TITLE: SITE EVALUATION FOR ONSITE TREATMENT AND DISPOSAL SYSTEMS.

DESCRIPTOR: *BIBLIOGRAPHIES; *DESIGN; *INSTRUCTIONAL MATERIALS; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SITE EVALUATION; *SOILS; *SOIL ABSORPTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 39P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH SITE EVALUATION FOR ONSITE TREATMENT AND DISPOSAL SYSTEMS. SECTIONS ARE INCLUDED ON ONSITE SYSTEM DESIGN STRATEGY, WASTEWATER TREATMENT AND DISPOSAL BY SOIL, SITE EVALUATION, AND REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007318

PUBLICATION DATE: 81

TITLE: SUBSURFACE SOIL ABSORPTION OF WASTEWATER TRENCHES AND BEDS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DRAINAGE BEDS; *DRAINAGE TRENCHES; *DESIGN; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SOILS; *SOIL ABSORPTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH TRENCHES AND BEDS FOR SUBSURFACE SOIL ABSORPTION OF WASTEWATER. SECTIONS INCLUDED IN THIS PUBLICATION ARE APPLICATION OF TRENCHES AND BEDS, DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE, AND REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007319

PUBLICATION DATE: 81

TITLE: SUBSURFACE SOIL ABSORPTION OF WASTEWATER MOUND SYSTEMS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DESIGN; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MOUND SYSTEMS; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SOILS; *SOIL ABSORPTION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH MOUND SYSTEMS OR SUBSURFACE SOIL ABSORPTION OF WASTEWATER. SECTIONS INCLUDED ARE FUNCTIONS, DESIGN, CONSTRUCTION, OPERATIONS AND MAINTENANCE, REFERENCES, AND PROBLEMS.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007320

TITLE: ONSITE WASTEWATER DISPOSAL DISTRIBUTION NETWORKS FOR SUBSURFACE SOIL ABSORPTION SYSTMEMS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DESIGN; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SOILS; *SOIL ABSORPTION; *WASTEWATER TREATMENT

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH DISTRIBUTION NETWORKS .FOR SUBSURFACE SOIL ABSORPTION SYSTEMS FOR ONSITE

WASTEWATER DISPOSAL. SECTIONS INCLUDED ARE METHODS OF DISTRIBUTION, DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE, REFERENCES, AND PROBLEMS.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007321

PUBLICATION DATE: 81

TITLE: ONSITE WASTEWATER TREATMENT - SEPTIC TANKS.

DESCRIPTOR: *BIBLIOGRAPHIES; *DESIGN; *CONSTRUCTION; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE TREATMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SEPTIC TANKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16P.

ABSTRACT: THIS PUBLICATION PROVIDES A BRIEF DISCUSSION OF SEPTIC TANKS. INCLUDED IS AN INTRODUCTION, AND SECTIONS ON PERFORMANCE, DESIGN, CONSTRUCTION, OPERATIONS AND MAINTENANCE, AND REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007322

PUBLICATION DATE: 81

TITLE: SUBSURFACE SOIL ABSORPTION SYSTEM DESIGN - WORK SESSION.

DESCRIPTOR: *FEASIBILITY STUDIES; *INSTRUCTIONAL MATERIALS; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SOILS; *SOIL ABSORPTION; *SYSTEM DESIGN; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH SUBSURFACE SOIL ABSORPTION SYSTEM DESIGN FOR WASTEWATER DISPOSAL. INCLUDED ARE SECTIONS ON FEASIBILITY ASSESSMENT, SOILS INVESTIGATION AND SYSTEM DESIGN.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007323

PUBLICATION DATE: 81

TITLE: SUBSURFACE SOIL ABSORPTION OF WASTEWATER

ARTIFICIALLY DRAINED SYSTEMS.
DESCRIPTOR: *DESIGN; *DRAINAGE SYSTEMS; *CONSTRUCTION; *INSTRUCTIONAL MATERIALS; *ONSITE WASTEWATER DISPOSAL; *POST SECONDARY EDUCATION; *SOILS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 17P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH SUBSURFACE ABSORPTION OF WASTEWATER ARTIFICIALLY DRAINED SYSTEMS. SECTIONS INCLUDE APPLICATIONS, DESIGN, CONSTRUCTION MAINTENANCE, AND PROBLEMS.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007324

PUBLICATION DATE: 81

TITLE: ONSITE WASTEWATER DISPOSAL EVAPOTRANSPIRATION AND EVAPOTRANSPIRATION/ABSORPTION SYSTEMS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DESIGN; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE TREATMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16P.

ABSTRACT: DESCRIBED ARE EVAPOTRANSPIRATION AND EVAPOTRANSPIRATION/ABSORPTION SYSTEMS RELATED TO ONSITE WASTEWATER SYSTEMS. SECTIONS INCLUDE INTRODUCTION, APPLICATION, DESIGN, CONSTRUCTION, OPERATIONS AND MAINTENANCE, BIBLIOGRAPHY, AND PROBLEMS.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007325

TITLE: ONSITE WASTEWATER TREATMENT INTERMITTENT SAND FILTERS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DESIGN; *FILTERS; *FILTRATION; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE TREATMENT; *POST SECONDARY EDUCATION; *SAND FILTERS; *WASTEWATER TREATMENT

ABSTRACT: DESCRIBED ARE INTERMITTENT SAND FILTERS FOR ONSITE WASTEWATER TREATMENT. SECTIONS INCLUDE INTRODUCTION, APPLICATION, DESIGN, CONSTRUCTION, MAINTENANCE, BIBLIOGRAPHY, AND PROBLEMS.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007326
PUBLICATION DATE: 81

TITLE: FACILITY PLANNING PROCESS SMALL ALTERNATIVE WASTEWATER SYSTEMS WORKSHOPS.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *APPROPRIATE TECHNOLOGY; *DESIGN; *ENVIRONMENTAL IMPACTS; *FACILITIES; *INSTRUCTIONAL MATERIALS; *PLANNING; *POST SECONDARY EDUCATION; *SMALL WASTEWATER SYSTEMS; *WASTEWATER SYSTEMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THIS PUBLICATION IS DESIGNED TO BE USED FOR A WORKSHOP ON PLANNING FACILITIES FOR SMALL ALTERNATIVE WASTEWATER SYSTEMS. SECTIONS INCLUDE CONSIDERATION OF SMALL COMMUNITIES AND THEIR NEEDS, BARRIERS TO FACILITY PLANNING, THE FACILITY PLANNING PROCESS, DEVELOPING COMMUNITY PROFILES, PROBLEM AREA DEFINITION, ALTERNATIVE GENERATION AND SELECTION, IMPACT ASSESSMENT, AND REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007327

PUBLICATION DATE: 81

TITLE: WASTEWATER COLLECTION SYSTEMS - SMALL DIAMETER GRAVITY SEWERS.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *DESIGN; *GRAVITY SEWERS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *POST SECONDARY EDUCATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 13P.

ABSTRACT: DESCRIBED ARE SMALL DIAMETER GRAVITY SEWERS FOR WASTEWATER COLLECTION. SECTIONS INCLUDE INTRODUCTION, APPLICATION, DESIGN, CONSTRUCTION, MAINTENANCE, AND REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007332

PUBLICATION DATE: 81

TITLE: MANAGMENT PLANS AND IMPLEMENTATION ISSUES - SMALL ALTERNATIVE WASTEWATER SYSTEMS WORKSHOPS.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *APPROPRIATE TECHNOLOGY; *BIBLIOGRAPHIES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *ONSITE WASTEWATER TREATMENT; *PLANNING; *POST SECONDARY EDUCATION; *SMALL WASTEWATER SYSTEMS; *WASTEWATER

TREATMENT
DESCRIPTIVE NOTE: 20P.

ABSTRACT: THIS DOCUMENT IS DESIGNED FOR USE IN WORKSHOPS ON MANAGEMENT PLANS AND IMPLEMENTATION ISSUES FOR SMALL ALTERNATIVE WASTEWATER SYSTEMS. SECTIONS INCLUDE (1) FUNCTIONS OF A MANAGEMENT SYSTEM, (2) IMPLEMENTING A MANAGEMENT PROGRAM, (3) KEY ELEMENTS OF A MANAGEMENT PLAN, AND (4) REFERENCES.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007333

PUBLICATION DATE: NOV 81

TITLE: SMALL FLOWS EQUIPMENT MANUFACTURERS.

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *INSTRUMENTS; *MANUFACTURERS; *OPERATIONS (WASTEWATER); *ONSITE WASTEWATER TREATMENT; *SUPPLIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 13P.

ABSTRACT: THIS PUBLICATION LISTS SMALL FLOWS EQUIPMENT MANUFACTURERS AS OF 6/2/81 THAT REGISTERED WITH THE SMALL WASTEWATER FLOWS CLEARINGHOUSE AT WEST VIRGINIA UNIVERSITY.

AVAILABILITY: EPA SMALL WASTEWATER FLOWS CLEARINGHOUSE CIVIL ENGINEERING DEPARTMENT, 258 STEWART STREET, WEST VIRGINIA STATE UNIVERSITY, MORGANTOWN, WV 26506

IRIS ACCESSION NUMBER: EW007944

PUBLICATION DATE: JUN 82

TITLE: RIGHT PLACE, TIME AND TECHNIQUE: RIGHT SAMPLE.

PERSONAL AUTHOR: GRANT, DOUGLAS M.

DESCRIPTOR: *ENFORCEMENT; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *PLANNING; *POLICIES; *QUALITY CONTROL; *PERFORMANCE EVALUATION; *SAMPLING; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 28-32P.

ABSTRACT: A WATER OR WASTEWATER QUALITY CONTROL OR IMPROVEMENT PROGRAM BEGINS WITH SAMPLING. THIS ARTICLE DESCRIBES PURPOSES OF SAMPLING AND SAMPLING SYSTEMS AND PROCEDURES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N7

IRIS ACCESSION NUMBER: EW007945
PUBLICATION DATE: JUN 82

TITLE: PAC PROCESS.

PERSONAL AUTHOR: MEIDL, JOHN A.

DESCRIPTOR: *ACTIVATED CARBON; *ACTIVATED SLUDGE; *COSTS; *DESIGN; *MANAGEMENT; *POWDERED ACTIVATED CARBON; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 33-36P.

ABSTRACT: THE USE OF POWDERED ACTIVATED CARBON (PAC) WITH ACTIVATED SLUDGE TREATMENT IS BECOMING BETTER UNDERSTOOD AND IS SHOWING GOOD RESULTS. DESCRIBED ARE SEVERAL PILOT STUDIES AND DATA REGARDING PAC.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V139 N7

IRIS ACCESSION NUMBER: EW007947

PUBLICATION DATE: JUN 82

TITLE: CRISIS: FINANCING WATER AND WASTEWATER.

PERSONAL AUTHOR: GILLILAND, E. J.; HANKE, STEVE H.

DESCRIPTOR: *FINANCING; *CONSTRUCTION; *COSTS; *FACILITIES; *MANAGEMENT; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 41-43P.

ABSTRACT: VARIOUS METHODS OF FINANCING CAPITAL EXPENDITURES FOR WATER AND WASTEWATER PROJECTS AND THE EXTENT TO WHICH CAPITAL CHARGES ARE RECOVERED ARE REVIEWED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N7

IRIS ACCESSION NUMBER: EW007948

PUBLICATION DATE: JUN 82

TITLE: HOW MUCH AIR?

PERSONAL AUTHOR: ARORA, MADAN L.

DESCRIPTOR: *ACTIVATED SLUDGE; *AERATION; *AIR; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43-44, 47P.

ABSTRACT: THIS ARTICLE CONSIDERS WHAT IS INVOLVED IN MAKING SURE AN ACTIVATED SLUDGE SYSTEM GETS OPTIMUM AERATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N7

IRIS ACCESSION NUMBER: EW007949

PUBLICATION DATE: JUN 82

TITLE: CROSS-COUNTRY FORCE MAIN.

DESCRIPTOR: *EFFLUENTS; *OPERATIONS (WASTEWATER); *PIPES; *POLYETHYLENE PIPES; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WISCONSIN

DESCRIPTIVE NOTE: 47-48P.

ABSTRACT: WINDING OVER THREE MILES, THIS TREATED EFFLUENT LINE IS PRACTICALLY A CONTINUOUS PIECE OF PIPE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N7

IRIS ACCESSION NUMBER: EW007973

PUBLICATION DATE: JUN 82

TITLE: SYSTEMS ANALYSIS.

PERSONAL AUTHOR: STEDINGER, J.; AND OTHERS

DESCRIPTOR: *ADMINISTRATION; *ANALYTICAL TECHNIQUES; ASSESSMENT; *LITERATURE REVIEWS; *MODELING; OPERATIONS (WASTEWATER); OPERATIONS (WATER); *POLLUTION CONTROL; *RESEARCH REPORTS; STATE-OF-THE-ART REVIEWS; *SYSTEMS ANALYSIS; *WASTEWATER REUSE; *WASTEWATER TREATMENT; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 508-511P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO SYSTEMS ANALYSIS IN WATER RESOURCES. TOPICS ADDRESSED INCLUDE WATER QUALITY MANAGEMENT, WATER QUALITY ASSESSMENT, POLLUTION CONTROL, WATER QUALITY MONITORING, AND WASTEWATER TREATMENT AND REUSE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007974

PUBLICATION DATE: JUN 82

TITLE: ECONOMICS.

PERSONAL AUTHOR: HITE, J. C.; MCCONNELL, R. K.

DESCRIPTOR: AGRICULTURE; *COST-BENEFIT ANALYSIS; *ECONOMIC FACTORS; *ECONOMICS; LAND USE; *LITERATURE REVIEWS; *NONPOINT POLLUTION; *POLLUTION CONTROL; *PUBLIC POLICY; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 511-513P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ECONOMICS IN WATER RESOURCES. TOPICS ADDRESSED INCLUDE NON-POINT POLLUTION, URBANIZATION, LAND USE, COST-BENEFIT ANALYSES, PUBLIC POLICY, ENVIRONMENTAL QUALITY, AND ECONOMIC INCENTIVES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007975

PUBLICATION DATE: JUN 82

TITLE: LAW.

PERSONAL AUTHOR: WALKER, WILLIAM R.

DESCRIPTOR: CLEAN WATER ACT; *COURT CASES; DRINKING WATER; ENVIRONMENTAL PROTECTION AGENCY; HAZARDOUS SUBSTANCES; *LEGAL ASPECTS; *LEGISLATION; *LITERATURE REVIEWS; NPDES; *POLLUTION CONTROL; *PUBLIC POLICY; *REGULATIONS; *STANDARDS; TOXIC SUBSTANCES; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 513-519P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO THE LEGAL ASPECTS OF POLLUTION CONTROL AND WATER QUALITY. TOPICS ADDRESSED INCLUDE THE CLEAN WATER ACT, NPDES PERMIT PROGRAM, NON-POINT SOURCE POLLUTION, EPA REGULATIONS, PUBLIC POLICY, SUPERFUND, TOXIC CHEMICALS, SURFACE MINING CONTROL AND RECLAMATION ACT, OIL SHALE, CITIZEN PARTICIPATION, GROUNDWATER, HAZARDOUS SUBSTANCES, LANDFILLS, RCRA, AND DRINKING WATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007976

PUBLICATION DATE: JUN 82

TITLE: INORGANICS.

PERSONAL AUTHOR: POLCYN, DANIEL S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; COMPUTER APPLICATIONS; *DATA ANALYSIS; HEAVY METALS; *INORGANIC COMPOUNDS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *METALS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; TRACE METALS; *WATER QUALITY

DESCRIPTIVE NOTE: 520-540P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE

LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO INORGANIC SUBSTANCES. TOPICS ADDRESSED INCLUDE COMPUTER ANALYSIS, DATA ANALYSIS AND TREATMENT, SAMPLE INTERACTIONS, SAMPLE CONCENTRATION, TRACE METALS, COMPLEXATION, SPECIATION, AND INTERLABORATORY STUDIES. A LIST OF REFERENCES IS ALSO PROVIDED FOR SPECIFIC RESEARCH IN INORGANIC IDENTIFICATION, ASSESSMENT, AND ANALYSIS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007977

PUBLICATION DATE: JUN 82

TITLE: WATER CHARACTERISTICS.

PERSONAL AUTHOR: SMITH, EDGAR D.

DESCRIPTOR: ACID RAIN; *ANALYTICAL TECHNIQUES; COLOR; DISSOLVED OXYGEN; *LITERATURE REVIEWS; ODOR; RADIOACTIVITY; *RESEARCH REPORTS; SALINITY; *STATE-OF-THE-ART REVIEWS; SUSPENDED SOLIDS; TASTE; TEMPERATURE; *WATER ANALYSIS; *WATER CHARACTERISTICS; *WATER QUALITY

DESCRIPTIVE NOTE: 541-554P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO WATER CHARACTERISTICS. TOPICS ADDRESSED INCLUDE ACID RAIN, COLOR, ODOR, TASTE, OPTICAL PROPERTIES, TEMPERATURE, DISSOLVED OXYGEN, SUSPENDED SOLIDS, SALINITY AND DISSOLVED SOLIDS, ACIDITY, ALKALINITY, HARDNESS, REDOX POTENTIAL, PH, AND RADIOACTIVITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007978

PUBLICATION DATE: JUN 82

TITLE: ORGANICS.

PERSONAL AUTHOR: DEWALLE, F. B.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; DETERGENTS; HYDROCARBONS; *LITERATURE REVIEWS; *ORGANIC COMPOUNDS; PESTICIDES; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; SURFACTANTS; *WATER; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 555-576P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ORGANIC COMPOUNDS. TOPICS ADDRESSED INCLUDE TOTAL ORGANIC DETERMINATIONS, DETERGENTS AND SURFACTANTS, ALIPHATIC AND AROMATIC HYDROCARBONS, PESTICIDES, CHLORINATED HYDROCARBONS AND RELATED COMPOUNDS, AND ORGANICS IN WATER AND WASTEWATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007979

PUBLICATION DATE: JUN 82

TITLE: CONTINUOUS MONITORING, AUTOMATED ANALYSIS AND SAMPLING PROCEDURES.

PERSONAL AUTHOR: PITT, W. W., JR.; DENTON, M. S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUMENTATION; *LITERATURE REVIEWS; *MONITORING; POLLUTION CONTROL; *RESEARCH REPORTS; *SAMPLING; *STATE-OF-THE-ART REVIEWS; *WATER; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 576-583P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO CONTINUOUS MONITORING, AUTOMATED ANALYSIS, AND SAMPLING PROCEDURES. TOPICS ADDRESSED INCLUDE MONITORING STRATEGIES AND SAMPLING PROTOCOLS, CONTINUOUS MONITORING APPLICATIONS, AUTOMATED ANALYSES, BIOLOGICAL MONITORING SYSTEMS, AND SAMPLING PROCEDURES AND DEVICES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007980

PUBLICATION DATE: JUN 82

TITLE: PHYSICAL AND CHEMICAL METHODS.

PERSONAL AUTHOR: MELEAR, ERIK. L.; ZOLTEK, JOHN, JR.

DESCRIPTOR: ADSORPTION; *CHEMICAL TREATMENT; COAGULATION; ION EXCHANGE; *LITERATURE REVIEWS; MEMBRANE PROCESSES; *OPERATION (WASTEWATER); OXIDATIVE PROCESSES; *PHYSICAL TREATMENT; *RESEARCH REPORTS; SOLIDS SEPARATION; *STATE-OF-THE-ART REVIEWS; TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 584-592P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATUE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO PHYSICAL AND CHEMICAL METHODS OF WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE COAGULATION AND SOLIDS SEPARATION, ADSORPTION, ION EXCHANGE, MEMBRANE PROCESSES, AND OXIDATIVE PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007981
PUBLICATION DATE: JUN 82

TITLE: BIOLOGICAL FILTERS.

PERSONAL AUTHOR: SWITZENBAUM, MICHAEL S.

DESCRIPTOR: ANAEROBIC FILTERS; *BIOLOGICAL FILTERS; *EQUIPMENT; *FILTERS; *FILTRATION; FIXED FILM PROCESSES; FLUIDIZED BED REACTORS; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; ROTATING BIOLOGICAL CONTACTORS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGICAL ADVANCEMENTS; TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 592-599P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO BIOLOGICAL FILTERS IN WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE ROTATING BIOLOGICAL CONTACTORS, ANAEROBIC FILTERS, FLUIDIZED BED/EXPANDED BED REACTORS, TRICKLING FILTERS, FIXED FILM PROCESSES, AND MULTISTAGE SYSTEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007982

PUBLICATION DATE: JUN 82

TITLE: ACTIVATED SLUDGE.

PERSONAL AUTHOR: ALLEMAN, JAMES E.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; INDUSTRIAL WASTES; INSTRUMENTATION; *LITERATURE REVIEWS; MODELING; NITROGEN; OXYGEN UPTAKE; *OPERATIONS (WASTEWATER); PROCESS DESCRIPTIONS; *RESEARCH REPORTS; *SLUDGE; *STATE-OF-THE-ART REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 599-610P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ACTIVATED SLUDGE. TOPICS ADDRESSED INCLUDE PROCESS MODELING, PROCESS RESEARCH, DESIGN AND PERFORMANCE, INSTRUMENTATION AND AUTOMATION, PROCESS CONTROL, INDUSTRIAL WASTEWATERS, NITROGEN METABOLISM, SLUDGE CHARACTERISTICS, AND OXYGEN UPTAKE AND TRANSFER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007983
PUBLICATION DATE: JUN 82

TITLE: LAGOONS AND OXIDATION PONDS.

PERSONAL AUTHOR: GEORGE, DENNIS B.

DESCRIPTOR: *DESIGN; *FACILITIES; *LAGOONS; *LITERATURE REVIEWS; MODELS; *OXIDATION PONDS; PERFORMANCE EVALUATION; PROCESS DESCRIPTIONS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; UPGRADING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 610-612P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO LAGOON AND OXIDATION PONDS. TOPICS ADDRESSED INCLUDE PROCESS DESIGN, PROCESS PERFORMANCE AND BIOLOGY, UPGRADING OF LAGOONS, AND PROCESS MODELS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007984

PUBLICATION DATE: JUN 82

TITLE: ANAEROBIC PROCESSES.

PERSONAL AUTHOR: FANNIN, KERBY F.; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; *CASE STUDIES; ECONOMIC FACTORS; ENERGY; *LITERATURE REVIEWS; MICROBIOLOGY; *OPERATIONS (WASTEWATER); PERFORMANCE EVALUATION; *PROCESS DESCRIPTIONS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 612-623P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ANAEROBIC PROCESSES. TOPICS ADDRESSED INCLUDE MICROBIOLOGY, PROCESS STABILITY, PROCESS OPTIMIZATION, ENERGY AND ECONOMIC ASSESSMENT, PROCESS APPLICATION, AND PATENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007985

PUBLICATION DATE: JUN 82

TITLE: DENITRIFICATION.

PERSONAL AUTHOR: PRAKASAM, T. B. S.; KRUP, M.

DESCRIPTOR: *DENTRIFICATION; *EQUIPMENT; *LITERATURE

REVIEWS; MICROBIOLOGY; *PROCESS DESCRIPTIONS; *RESEARCH REPORTS; SLURRY PROCESSES; SOILS; *STATE-OF-THE-ART REVIEWS; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 623-631P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DENITRIFICATION. TOPICS ADDRESSED INCLUDE PROCESS MICROBIOLOGY, SLURRY PROCESSES, ATTACHED GROWTH PROCESSES, SOIL DENITRIFICATION, AND PATENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL V54 N6

IRIS ACCESSION NUMBER: EW007986

PUBLICATION DATE: JUN 82

TITLE: SLUDGE TREATMENT, UTILIZATION, AND DISPOSAL.

PERSONAL AUTHOR: VESILIND, P. AARNE

DESCRIPTOR: DEWATERING; INCINERATION; *LITERATURE REVIEWS; *RESEARCH REPORTS; *SLUDGE; SLUDGE STABILIZATION; SLUDGE TREATMENT; SLUDGE UTILIZATION; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 631-637P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO SLUDGE TREATMENT, UTILIZATION, AND DISPOSAL. TOPICS ADDRESSED INCLUDE SLUDGE PROPERTIES, THERMAL TREATMENT AND INCINERATION, THICKENING, DEWATERING, STABILIZATION, AND ULTIMATE DISPOSAL AND UTILIZATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007987

PUBLICATION DATE: JUN 82

TITLE: ONSITE ALTERNATIVES FOR TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: BOYLE, WILLIAM C.; OTIS, RICHARD J.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGYS; CASE STUDIES; DESIGN; *FACILITIES; *LITERATURE REVIEWS; MANAGEMENT; *ONSITE DISPOSAL; *ONSITE TREATMENT; *RESEARCH REPORTS; SANITATION; SOILS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 637-642P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ONSITE

ALTERNATIVES FOR TREATMENT AND DISPOSAL. TOPICS ADDRESSED INCLUDE ONSITE TREATMENT, SUBSURFACE DISPOSAL SYSTEMS, ALTERNATIVE SYSTEMS, MANAGEMENT, SMALL COMMUNITY FACILITIES, AND SANITATION IN DEVELOPING COUNTRIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007988

PUBLICATION DATE: JUN 82

TITLE: OPERATION AND MAINTENANCE OF WASTEWATER SYSTEMS INCLUDING INSTRUMENTATION AND AUTOMATION.

PERSONAL AUTHOR: KUCELMAN, IRWIN J.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *INSTRUMENTATION; *LITERATURE REVIEWS; *MAINTENANCE; MODELING; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; PROCESS DESCRIPTIONS; RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 642-646P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO OPERATION AND MAINTENANCE OF WASTEWATER SYSTEMS INCLUDING INSTRUMENTATION AND AUTOMATION. TOPICS ADDRESSED INCLUDE OPERATOR TRAINING, PROCESS CONTROL AND OPERATION OF TREATMENT PROCESSES, INSTRUMENTATION, MODELING, APPLICATION OF COMPUTERS, AND MISCELLANEOUS OPERATION AND MAINTENANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007989

PUBLICATION DATE: JUN 82

TITLE: DISINFECTION.

PERSONAL AUTHOR: HAAS, CHARLES N.; MCCREARY, JOHN J.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *DISINFECTION; INORGANIC COMPOUNDS; *LITERATURE REVIEWS; MICROBIOLOGY; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); ORGANIC COMPOUNDS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; TRIHALOMETHANES; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 646-654P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DISINFECTION. TOPICS ADDRESSED INCLUDE MICROBIOLOGY, ANALYTICAL METHODS, INORGANIC TRANSFORMATIONS, FORMATION OF NONVOLATILE ORGANIC COMPOUNDS, AND FORMATION OF

TRIHALOMETHANES.
AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007990

PUBLICATION DATE: JUN 82

TITLE: WATER RECLAMATION AND REUSE.

PERSONAL AUTHOR: HRUDEY, STEVE E.

DESCRIPTOR: AGRICULTURE; COMMERCIAL WATER USE; DOMESTIC WATER USE; GROUNDWATER; INDUSTRY; IRRIGATION; *LITERATURE REVIEWS; PUBLIC HEALTH; *RECYCLING; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGY; *WATER TREATMENT; *WASTEWATER TREATMENT; WATER QUALITY; *WATER RECLAMATION; *WATER RESOURCES; *WATER REUSE

DESCRIPTIVE NOTE: 654-673P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO WATER RECLAMATION AND REUSE. TOPICS ADDRESSED INCLUDE AGRICULTURE AND IRRIGATION, GROUNDWATER RECHARGE, INDUSTRIAL WATER REUSE, MUNICIPAL, COMMERCIAL, AND DOMESTIC REUSE, RECLAIMED WATER QUALITY AND HEALTH CONSIDERATIONS, AND TECHNOLOGY DEVELOPMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007991

PUBLICATION DATE: JUN 82

TITLE: LAND APPLICATION OF WASTEWATER.

PERSONAL AUTHOR: REYNOLDS, JAMES H.

DESCRIPTOR: *CASE STUDIES; *LAND APPLICATION; *LITERATURE REVIEWS; *MICROBIOLOGY; NUTRIENTS; *OPERATIONS (WASTEWATER); PUBLIC HEALTH; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 673-675P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO LAND APPLICATION OF WASTEWATER. TOPICS ADDRESSED INCLUDE CASE STUDIES, NUTRIENTS, AND MICROBIOLOGY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007992
PUBLICATION DATE: JUN 82

TITLE: URBAN RUNOFF AND COMBINED SEWER OVERFLOW.

PERSONAL AUTHOR: MOFFA, PETER E.; AND OTHERS

DESCRIPTOR: *COMBINED SEWERS; DESIGN; *LITERATURE REVIEWS; *MANAGEMENT; *RESEARCH REPORTS; *RUNOFF; *SEWERS; *STATE-OF-THE-ART REVIEWS; *STORMWATER; *SURFACE RUNOFF; URBAN AREAS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 675-677P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO URBAN RUNOFF AND COMBINED SEWER OVERFLOW. TOPICS ADDRESSED INCLUDE CHARACTERISTICS, RECEIVING WATER, CONTROL, TREATMENT, AND MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007993

PUBLICATION DATE: JUN 82

TITLE: HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: KOWAL, N. E.; PAHREN, H. R.

DESCRIPTOR: AQUACULTURE; COMPOSTING; *HEALTH EFFECTS; INCINERATION; INDUSTRIAL WASTES; *LAND APPLICATION; *LITERATURE REVIEWS; ONSITE TREATMENT; *PUBLIC HEALTH; *RESEARCH REPORTS; *SLUDGE; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; WASTEWATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 677-687P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL. TOPICS ADDRESSED INCLUDE WASTEWATER TREATMENT PLANTS, INCINERATION, COMPOSTING, LAND APPLICATION OF WASTEWATER AND SLUDGE, AQUACULTURE, ON-SITE SYSTEMS, RENOVATED WATER, AND INDUSTRIAL WASTEWATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007994

PUBLICATION DATE: JUN 82

TITLE: MEAT-, FISH-, AND POULTRY-PROCESSING WASTES.

PERSONAL AUTHOR: LITCHFIELD, J. H.

DESCRIPTOR: *CASE STUDIES; *FISH; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MEAT; *POULTRY; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 688-692P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO PROCESSING OF MEAT, FISH, AND POULTRY WASTES. TOPICS ADDRESSED INCLUDE MEAT PROCESSING, FISH PROCESSING, AND POULTRY PROCESSING CASE STUDIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007995

PUBLICATION DATE: JUN 82

TITLE: FRUIT, VEGETABLE, AND GRAIN PROCESSING WASTES.

PERSONAL AUTHOR: MORRELL, ROBERT A.; SCHMIDT, HAROLD E., JR.

DESCRIPTOR: *AGRICULTURAL WASTES; *CASE STUDIES; *FRUITS; *GRAINS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *VEGETABLES; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WASTES

DESCRIPTIVE NOTE: 692-695P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO THE PROCESSING OF FRUIT, VEGETABLE, AND GRAIN WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007996

PUBLICATION DATE: JUN 82

TITLE: FERMENTATION INDUSTRY.

PERSONAL AUTHOR: CHIESA, STEVEN C.; AND OTHERS

DESCRIPTOR: *FERMENTATION; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTEWATER RECOVERY; *WASTEWATER RECYCLING; *WASTEWATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 695-700P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO INDUSTRIAL WASTES IN THE FERMENTATIONINDUSTRY. TOPICS ADDRESSED INCLUDE WASTE REUSE, RECYCLING AND RECOVERY, AND TREATMENT ALTERNATIVES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007997

PUBLICATION DATE: JUN 82

TITLE: DAIRY WASTES.

PERSONAL AUTHOR: GROENEWOLD, J. C.

DESCRIPTOR: *AGRICULTURAL WASTES; *CASE STUDIES; *DAIRY WASTES; ECONOMIC FACTORS; *INDUSTRIAL WASTES; LEGISLATION; *LITERATURE REVIEWS; REGULATIONS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTES; *WASTEWATER TREATMENT; WHEY DISPOSAL

DESCRIPTIVE NOTE: 700-702P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DAIRY WASTES. TOPICS ADDRESSED INCLUDE REGULATIONS, LEGISLATION, ECONOMICS, WHEY DISPOSAL, CASE HISTORIES, AND RESEARCH.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007998

PUBLICATION DATE: JUN 82

TITLE: TEXTILE WASTES.

PERSONAL AUTHOR: JUDKINS, F. F., JR.

DESCRIPTOR: *CASE STUDIES; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TEXTILES; *WASTE RECOVERY; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 702-704P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO TEXTILE WASTES. TOPICS ADDRESSED INCLUDE WASTEWATER TREATMENT, SLUDGE TREATMENT, WASTE RECYCLING, AND RECOVERY METHODS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW007999
PUBLICATION DATE: JUN 82

TITLE: PULP AND PAPER EFFLUENT MANAGEMENT.

PERSONAL AUTHOR: COVE, GEORGE W.

DESCRIPTOR: BIOLOGICAL TREATMENT; *EFFLUENTS; *FOREST PRODUCTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MANAGEMENT; OPERATIONS (WASTEWATER); *PAPER INDUSTRY; *PULP INDUSTRY; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 704-716P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO PULP AND PAPER EFFLUENT MANAGEMENT. TOPICS ADDRESSED INCLUDE NATIONAL POLICIES, WASTEWATER TREATMENT, RECEIVING WATERS, BIOLOGICAL EFFECTS, EFFLUENT CHARACTERISTICS, PULPING LIQUOR DISPOSAL AND RECOVERY, PHYSICOCHEMICAL TREATMENT, AND BIOLOGICAL TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008000

PUBLICATION DATE: JUN 82

TITLE: COAL AND COAL MINE DRAINAGE.

PERSONAL AUTHOR: OLEM, HARVEY

DESCRIPTOR: *COAL; COAL CLEANING; COAL INDUSTRY; *COAL MINE DRAINAGE; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MINING; *POLLUTION CONTROL; REGULATIONS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 717-723P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO COAL AND COAL MINE DRAINAGE. TOPICS ADDRESSED INCLUDE ENVIRONMENTAL REGULATIONS, REVIEWS AND BIBLIOGRAPHIES, COAL MINING, COAL CLEANING, AND COAL TRANSPORTATION AND STORAGE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008001

PUBLICATION DATE: JUN 82

TITLE: PETROLEUM PROCESSING WASTES.

PERSONAL AUTHOR: STOVER, ENOS L.; TORPY, MICHAEL F.
DESCRIPTOR: *EFFLUENTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER); *PETROLEUM INDUSTRY; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGY; *WASTE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 723-726P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO PETROLEUM PROCESSING WASTES. TOPICS ADDRESSED INCLUDE PRIORITY POLLUTANTS, EFFLUENT QUALITY, OIL WATER SEPARATION, WASTEWATER TREATMENT, WATER POLLUTION, AND TECHNOLOGICAL ADVANCEMENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008002

PUBLICATION DATE: JUN 82

TITLE: SYNTHETIC FUEL EFFLUENTS.

PERSONAL AUTHOR: TORPY, MICHAEL F.; STOVER, ENOS L.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; COAL CONVERSION; *EFFLUENTS; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *OIL SHALE; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *SYNTHETIC FUELS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 726-729P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO SYNTHETIC FUEL EFFLUENTS. TOPICS ADDRESSED INCLUDE COAL AND BIOMASS CONVERSION, OIL SHALE, AND TAR SAND.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008003

PUBLICATION DATE: JUN 82

TITLE: STEEL INDUSTRY WASTES.

PERSONAL AUTHOR: VACHON, D. T.; AND OTHERS

DESCRIPTOR: COKE PRODUCTION; *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES; PICKLING; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *STEEL INDUSTRY; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 729-733P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO STEEL INDUSTRY WASTES. TOPICS ADDRESSED INCLUDE COKE PRODUCTION, IRON/STEEL MAKING, PICKLING OPERATIONS, AND FINISHING PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0080004

PUBLICATION DATE: JUN 82

TITLE: ELECTROPLATING AND CYANIDE WASTES.

PERSONAL AUTHOR: KNOCKE, WILLIAM R.; KUNJUR, JAIDEV

DESCRIPTOR: *CYANIDE; *ELECTROPLATING; HEAVY METALS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *POLLUTION CONTROL; REGULATIONS; *RESEARCH REPORTS; SLUDGE TREATMENT; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTE RECOVERY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 733-737P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO ELECTROPLATING AND CYANIDE WASTES. TOPICS ADDRESSED INCLUDE REGULATORY ASPECTS, HEAVY METALS TREATMENT AND RECOVERY, CYANIDE DETECTION AND TREATMENT, AND SLUDGE TREATMENT AND CONTROL.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0080005

PUBLICATION DATE: JUN 82

TITLE: CHEMICALS AND ALLIED PRODUCTS.

PERSONAL AUTHOR: SIEGRIST, T. W.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CHEMICAL INDUSTRY; *CHEMICALS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 737-749P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO CHEMICALS AND ALLIED PRODUCTS. TOPICS ADDRESSED INCLUDE WASTEWATER TREATMENT BY PRODUCT TYPE, SOURCE TREATMENT, BIOLOGICAL TREATMENT, AND PHYSICAL/CHEMICAL TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION

V54 N6

IRIS ACCESSION NUMBER: EW0080006

PUBLICATION DATE: JUN 82

TITLE: SOLID WASTES AND WATER QUALITY.

PERSONAL AUTHOR: BROWER, GEORGE R.; RAMKRISHNADAS, R.

DESCRIPTOR: DESIGN; ENVIRONMENTAL IMPACTS; *FACILITIES; GROUNDWATER; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *SOLID WASTES; *WASTE DISPOSAL; *WASTE MANAGEMENT; *WASTE TREATMENT; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 749-754P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO SOLID WASTES AND WATER QUALITY. TOPICS ADDRESSED INCLUDE ENVIRONMENTAL IMPACT, DESIGN, COLLECTION, AND ATTENUATION, CHARACTERIZATION AND TREATMENT, AND HAZARDOUS WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0080007

PUBLICATION DATE: JUN 82

TITLE: NON-POINT SOURCES.

PERSONAL AUTHOR: BROWNE, FRANK X.; AND OTHERS

DESCRIPTOR: *ACID RAIN; ANALYTICAL TECHNIQUES; *LITERATURE REVIEWS; *MANAGEMENT; MODELING; *NONPOINT SOURCE POLLUTION; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY; *WATERSHEDS

DESCRIPTIVE NOTE: 755-763P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO NON-POINT SOURCES. TOPICS ADDRESSED INCLUDE ANALYSIS AND CHARACTERISTICS, WATER QUALITY EFFECTS, WATERSHEDS, NON-POINT SOURCE MODELS, NON-POINT SOURCE MANAGEMENT, AND ACID RAIN.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0008008
PUBLICATION DATE: JUN 82

TITLE: MIXING AND TRANSPORT.

PERSONAL AUTHOR: ROBERTS, PHILIP J. W.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; COASTAL AREAS; *ESTUARIES; *LAKES; *LITERATURE REVIEWS; *POLLUTION CONTROL; *RESEARCH REPORTS; *RIVERS; SALT MARSHES; *STATE-OF-THE-ART REVIEWS; *TRANSPORT; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 763-769P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MIXING AND TRANSPORT. TOPICS ADDRESSED INCLUDE STREAMS AND RIVERS, LAKES, RESERVOIRS, COOLING PONDS, ESTUARIES AND SALT MARSHES, COASTAL WATERS, JETS AND PLUMES, AND STRATIFIED FLUIDS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0008009

PUBLICATION DATE: JUN 82

TITLE: EUTROPHICATION.

PERSONAL AUTHOR: MEDINE, ALLEN J.; PORCELLA, DONALD B.

DESCRIPTOR: AQUATIC ENVIRONMENTS; BIOASSAYS; *ECOLOGY; *EUTROPHICATION; LAKES; *LITERATURE REVIEWS; MANAGEMENT; MODELING; NUTRIENT LOADING; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 770-778P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO EUTROPHICATION. TOPICS ADDRESSED INCLUDE NUTRIENT LOADING MODELS, EUTROPHICATION INDICATORS, EUTROPHICATION AND ECOSYSTEM MODELING, NUTRIENT SOURCES AND SINKS, BIOLOGICAL AND CHEMICAL INTERACTIONS, BIOASSAY AND LABORATORY STUDIES, AND LAKE MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0008010

PUBLICATION DATE: JUN 82

TITLE: DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS.

PERSONAL AUTHOR: BOHAC, CHARLES E.
DESCRIPTOR: DESTRATIFICATION; *DISSOLVED OXYGEN; GAS MEASUREMENT; GAS TRANSFER; *LITERATURE REVIEWS; MODELING; REAERATION; *RESEARCH REPORTS; *RESERVOIRS; *STATE-OF-THE-ART REVIEWS; *STREAMS; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 778-784P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS. TOPICS ADDRESSED INCLUDE WATER QUALITY MODELS, OXYGEN DEMAND AND RESPONSE TO WASTE LOADS, REAERATION AND DESTRATIFICATION, AND GAS TRANSFER AND MEASUREMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0008011

PUBLICATION DATE: JUN 82

TITLE: GROUND WATER.

PERSONAL AUTHOR: EMRICH, G. H.

DESCRIPTOR: CONTAMINATION; *GROUNDWATER; *HAZARDOUS WASTES; *LITERATURE REVIEWS; MODELING; *MONITORING; *RESEARCH REPORTS; SAMPLING; *STATE-OF-THE-ART REVIEWS; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 784-786P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO GROUNDWATER. TOPICS ADDRESSED INCLUDE SAMPLING PROCEDURES, ORGANIC CONTAMINANTS, UNDERGROUND INJECTION, MATHEMATICAL MODELS, HAZARDOUS WASTES, AND GROUNDWATER MONITORING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW0008012

PUBLICATION DATE: JUN 82

TITLE: MARINE AND ESTUARINE POLLUTION.

PERSONAL AUTHOR: REISH, DONALD J.; AND OTHERS

DESCRIPTOR: AQUATIC ORGANISMS; DREDGING; *EFFLUENTS; *ESTUARIES; *LITERATURE REVIEWS; *MARINE ENVIRONMENTS; MICROBIOLOGY; *OCEANS; OIL DRILLING; OIL SPILLS; PESTICIDES; *POLLUTION CONTROL; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; WASTE DISPOSAL; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 786-812P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MARINE AND ESTUARINE POLLUTION. TOPICS ADDRESSED INCLUDE PESTICIDES, MICROBIOLOGY DISEASES AND ABNORMALITIES, DRILLING FLUIDS AND MUDS, DREDGE AND SOLIDS DISPOSAL, SURVEYS, RESIDUES, OIL POLLUTION, AND COMPLEX EFFLUENTS AND ENVIRONMENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008013

PUBLICATION DATE: JUN 82

TITLE: THERMAL EFFECTS.

PERSONAL AUTHOR: CRAVENS, J. B.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *AQUATIC ORGANISMS; *LITERATURE REVIEWS; MODELING; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; TEMPERATURE; *THERMAL EFFECTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 812-829P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO THERMAL EFFECTS. TOPICS ADDRESSED INCLUDE MODELING, SITE STUDIES, PRODUCERS, CONSUMERS, AND BIOCHEMICAL REACTION STUDIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008014

PUBLICATION DATE: JUN 82

TITLE: BIOASSAYS--PROCEDURES AND RESULTS.

PERSONAL AUTHOR: MACIOROWSKI, A. F.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOASSAYS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; MICROORGANISMS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; TESTING; TOXIC SUBSTANCES; WATER QUALITY; *WATER POLLUTION

DESCRIPTIVE NOTE: 830-848P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO BIOASSAYS. TOPICS ADDRESSED INCLUDE DESIGN, INTERPRETATION AND STRATEGY, MICROORGANISMS, ASSAYS WITH ALGAE AND OTHER PLANTS, INVERTEBRATES, FISH AND AMPHIBIANS, COMPARATIVE TESTING, MICROCOSMS, IN SITU TESTING, AND HEALTH EFFECT ASSAYS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008015

PUBLICATION DATE: JUN 82

TITLE: BIOACCUMULATION AND TOXICITY OF HEAVY METALS AND RELATED TRACE ELEMENTS.

PERSONAL AUTHOR: MURPHY, CORNELIUS B., JR.; SPIEGEL, STUART J.

DESCRIPTOR: *BIOACCUMULATION; BIOCONCENTRATION; CHEMICALS; *DETOXIFICATION; *HEAVY METALS; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TOXICITY; *TOXIC SUBSTANCES; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 849-854P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO BIOACCUMULATION AND TOXICITY OF HEAVY METALS AND RELATED TRACE ELEMENTS. TOPICS ADDRESSED INCLUDE HEAVY METALS BIOCONCENTRATION, TOXICITY, DETOXIFICATION OF HEAVY METALS, AND APPLICATIONS OF HEAVY METAL TOXICITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008016

PUBLICATION DATE: JUN 82

TITLE: AQUATIC SEDIMENTS.

PERSONAL AUTHOR: DEPINTO, JOSEPH V.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENTS; *HEAVY METALS; *LITERATURE REVIEWS; MODELING; *NUTRIENTS; *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *SAMPLING; *SEDIMENTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 855-862P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO AQUATIC SEDIMENTS. TOPICS ADDRESSED INCLUDE ANALYTICAL AND SAMPLING METHODS, HEAVY METALS, NUTRIENTS, BIOLOGICAL ACTIVITY, ORGANICS, AND MODELING AND SEDIMENT TRANSPORT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008017

PUBLICATION DATE: JUN 82

TITLE: EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES.

PERSONAL AUTHOR: BUIKEMA, A. L.; AND OTHERS

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *AQUATIC ORGANISMS; *BIOLOGY; *ECOLOGY; *ENVIRONMENTAL IMPACTS; *INVERTEBRATES; *LITERATURE REVIEWS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 862-868P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES. TOPICS ADDRESSED INCLUDE METHODS, INVERTEBRATES, CLADOCERA, ZOOPLANKTONS, AMPHIPODS, ISOPODS, DECAPODS, AQUATIC INSECTS, MOLLUSKS, WORMS, AND PROTOZOA.

AVAILABILITY: JOURNAL WATER POLLUTION FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008018

PUBLICATION DATE: JUN 82

TITLE: FRESHWATER MACROINVERTEBRATES.

PERSONAL AUTHOR: QUIGLEY, M. A.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *AQUATIC ORGANISMS; *ECOLOGY; *INVERTEBRATES; *LITERATURE REVIEWS; *MACROINVERTEBRATES; ORGANIC WASTES; *RESEARCH REPORTS; SAMPLING; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 868-877P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO FRESHWATER MACROINVERTEBRATES. TOPICS ADDRESSED INCLUDE INDEXES AND INDICATORS, ORGANIC AND OTHER WASTES, PHYSICAL ENVIRONMENTAL ALTERATIONS, DISTRIBUTION AND HABITAT REQUIREMENTS, PRODUCTION, FOOD AND FEEDING, PERIODICITY AND DRIFT, ANIMAL-SEDIMENT INTERACTIONS, AND SAMPLING METHODS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008019

PUBLICATION DATE: JUN 82

TITLE: EFFECTS OF POLLUTION ON FRESHWATER FISH.

PERSONAL AUTHOR: SPEHAR, R. L.; AND OTHERS

DESCRIPTOR: *AQUATIC ORGANISMS; *CHEMICALS; *EFFLUENTS; *ENVIRONMENTAL IMPACTS; *FISH; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MUNICIPAL WASTES; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 877-922P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO THE EFFECTS OF POLLUTION ON FRESHWATER FISH. TOPICS ADDRESSED INCLUDE WATER QUALITY, CHEMICAL POLLUTANTS, AND INDUSTRIAL AND MUNICIPAL EFFLUENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008020

PUBLICATION DATE: JUN 82

TITLE: SUBSTRATE-ASSOCIATED MICROFAUNA.

PERSONAL AUTHOR: BURTON, G. ALLEN, JR.; LAZORCHAK, JAMES M.

DESCRIPTOR: *ECOLOGY; *ECOLOGICAL FACTORS; *LITERATURE REVIEWS; *MICROFAUNA; *MICROBIOLOGY; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TOXICITY; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 922-931P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO SUBSTRATE-ASSOCIATED MICROFAUNA. TOPICS ADDRESSED INCLUDE METHODOLOGY, ECOLOGY, AND TOXICITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008021

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY: WATER.

PERSONAL AUTHOR: GELDREICH, EDWIN E.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *ECOLOGY; *ECOLOGICAL FACTORS; *LAKES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REPORTS; *RIVERS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 931-943P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MICROBIOLOGY AND WATER POLLUTION. TOPICS ADDRESSED INCLUDE

MICROBIAL INDICATORS OF POLLUTION, MICROBIAL ECOLOGY OF WATER, MICROBIOLOGY OF RIVER SYSTEMS TO COASTAL AREAS, AND MICROBIOLOGY OF NATURAL LAKES AND IMPOUNDMENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008022

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY OF POTABLE WATER AND GROUND WATER.

PERSONAL AUTHOR: ALLEN, MARTIN J.

DESCRIPTOR: *DRINKING WATER; *GROUNDWATER; *LITERATURE REVIEWS; *MICROBIOLOGY; *POTABLE WATER; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 943-946P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MICROBIOLOGY OF POTABLE WATER AND GROUNDWATER. TOPICS ADDRESSED INCLUDE POTABLE WATER TREATMENT AND GROUNDWATER QUALITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008023

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY: DETECTION OF BACTERIAL PATHOGENS AND THEIR OCCURRENCE.

PERSONAL AUTHOR: REASONER, DONALD J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; ANIMALS; *BACTERIA; *CONTAMINATION; *LITERATURE REVIEWS; *MICROBIOLOGY; *PATHOGENS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 946-980P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DETECTION OF BACTERIAL PATHOGENS AND THEIR OCCURRENCE. TOPICS ADDRESSED INCLUDE BACTERIAL PATHOGENS IN ANIMALS, AND DETECTION AND IDENTIFICATION OF WATERBORNE BACTERIAL PATHOGENS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008024

PUBLICATION DATE: JUN 82

TITLE: DISEASE OUTBREAKS CAUSED BY DRINKING WATER.

PERSONAL AUTHOR: DUFOUR, A. P.

DESCRIPTOR: *CONTAMINATION; *DISEASES; *DRINKING WATER; *EPIDEMIOLOGY; *HEALTH EFFECTS; *LITERATURE REVIEWS; *PUBLIC HEALTH; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 980-983P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DISEASE OUTBREAKS CAUSED BY DRINKING WATER. TOPICS ADDRESSED INCLUDE EPIDEMIOLOGICAL STUDIES, CHOLERA, GIARDIASIS, VIRAL GASTROENTERITIS, CAMPYLOBACTER ENTERITIS, SPARGANOSIS, AND PULMONARY DISEASE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008025

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY: DETECTION, OCCURRENCE AND REMOVAL OF VIRUSES.

PERSONAL AUTHOR: ROY, D.; TITTLEBAUM, M. E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ORGANISMS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REPORTS; *SLUDGE; *STATE-OF-THE-ART REVIEWS; *VIRUSES; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 984-986P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO DETECTION, OCCURRENCE AND REMOVAL OF VIRUSES. TOPICS ADDRESSED INCLUDE DETECTION METHODOLOGY, SURVIVAL OF VIRUSES, REMOVAL OF VIRUSES BY TREATMENT PROCESSES, VIRUSES IN SOIL-SLUDGE SYSTEMS, VIRUSES IN SHELLFISH, AND INDICATORS OF VIRUSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008026

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY: WASTEWATER TREATMENT.

PERSONAL AUTHOR: PIPES, WESLEY O.; MINNICH, HARVEY A.
DESCRIPTOR: *ACTIVATED SLUDGE; *INDUSTRIAL WASTES; LAND APPLICATION; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REPORTS; *SLUDGE; STABILIZATION PONDS; *STATE-OF-THE-ART REVIEWS; WASTE DISPOSAL; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 987-989P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MICROBIOLOGY AND WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE ACTIVATED SLUDGE, STABILIZATION PONDS, LAND DISPOSAL, SLUDGE TREATMENT PROCESSES, AND INDUSTRIAL WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008027

PUBLICATION DATE: JUN 82

TITLE: POWER INDUSTRY WASTES.

PERSONAL AUTHOR: CHU, TIEN-YUNG J.; OLEM, HARVEY

DESCRIPTOR: ENERGY; FLUIDIZED-BED COMBUSTION; FOSSIL FUELS; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; NUCLEAR POWER; *POWER PRODUCTION; *POWER INDUSTRY; REGULATIONS; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; WASTE HEAT UTILIZATION; *WASTE TREATMENT

DESCRIPTIVE NOTE: 990-1002P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO POWER INDUSTRY WASTES. TOPICS ADDRESSED INCLUDE ENVIRONMENTAL REGULATION, HYDROELECTRIC POWER PLANTS, FOSSIL-FUELED POWER PLANTS, WASTE CHARACTERIZATION, TREATMENT, DISPOSAL, AND UTILIZATION, NUCLEAR POWER PLANTS, FLUIDIZED-BED COMBUSTION, AND WASTE HEAT UTILIZATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008028

PUBLICATION DATE: JUN 82

TITLE: RADIOACTIVE WASTES.

PERSONAL AUTHOR: BLAYLOCK, B. G.; ALEXANDER, H. J.

DESCRIPTOR: *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *MONITORING; NUCLEAR POWER; *RADIOACTIVE MATERIALS; *RADIOACTIVE WASTES; *RESEARCH REPORTS; RISK ASSESSMENT; *STATE-OF-THE-ART REVIEWS; STORAGE; TRANSPORTATION; WASTE

DISPOSAL; *WASTE MANAGEMENT
DESCRIPTIVE NOTE: 1002-1023P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO RADIOACTIVE WASTES. TOPICS ADDRESSED INCLUDE GENERAL NUCLEAR WASTE DISPOSAL PROGRAMS, ISOLATION, WASTE TREATMENT, WASTE MANAGEMENT, STORAGE, ENVIRONMENTAL TRANSPORT, MONITORING, TRANSPORTATION, RISK, ASSESSMENT, REMEDIAL ACTION, AND SOCIOECONOMIC FACTORS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008029

PUBLICATION DATE: JUN 82

TITLE: MICROBIOLOGY: METHODOLOLOGY AND QUALITY ASSURANCE.

PERSONAL AUTHOR: BORDNER, ROBERT H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOASSAYS; ENUMERATION; ISOLATION; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MICROBIOLOGY; *POLLUTION CONTROL; *QUALITY CONTROL; *RESEARCH REPORTS; SAMPLING; *STATE-OF-THE-ART REVIEWS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 1024-1037P.

ABSTRACT: THIS ARTICLE IS AN UPDATE TO ONE THAT APPEARED IN THE 1981 LITERATURE REVIEW ISSUE. A DETAILED REVIEW OF THE LITERATURE IS PROVIDED FOR VARIOUS TOPICS RELATING TO MICROBIOLOGY AND METHODOLOGY AND QUALITY ASSURANCE IN WATER POLLUTION CONTROL. TOPICS ADDRESSED INCLUDE METHODS, ISOLATION AND ENUMERATION PROCEDURES, IDENTIFICATION SYSTEMS, SAMPLING, RAPID METHODS, BACTERIAL BIOASSAYS, AND QUALITY ASSURANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION V54 N6

IRIS ACCESSION NUMBER: EW008037

TITLE: PACKAGE PLANTS.

DESCRIPTOR: *COSTS; *EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ONSITE WASTEWATER TREATMENT; *OPERATIONS (WASTEWATER); *PACKAGE PLANTS; *PERFORMANCE EVALUATION; *POST SECONDARY EDUCATION; *TROUBLESHOOTING; *WASTEWATER TREATMENT

ABSTRACT: THE PUBLICATION IS CONCERNED WITH THE OPERATION OF PACKAGE PLANTS FOR TREATING WASTEWATER. THESE PLANTS OFFER ADVANTAGES, DISADVANTAGES, PROCESS VARIATIONS, AND COST VARIABLES. THESE TOPICS ARE DISCUSSED AS WELL AS OPERATION, MAINTENANCE, AND TROUBLESHOOTING.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY - TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW008038

PUBLICATION DATE: 76

TITLE: CHEMISTRY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL REACTIONS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 113P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH VARIOUS ASPECTS OF CHEMISTRY RELATED TO WASTEWATER TREATMENT. SOME OF THE PAGES HAVE MARGINAL LEGIBILITY.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY - TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW008039

PUBLICATION DATE: 75

TITLE: ALL OF US HAVE COME A LONG WAY.

DESCRIPTOR: *ARITHMETIC; *CERTIFICATION; *GEOMETRY; *INSTRUCTIONAL MATERIALS; *MATHEMATICS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TRAINING; *VIRGINIA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55P.

ABSTRACT: THIS PUBLICATION IS CONCERNED WITH BASIC MATHEMATICS NEEDED TO PREPARE FOR WASTEWATER TREATMENT CERTIFICATION. INCLUDED IN THE PUBLICATIONS IS A MATH REVIEW, NOTATION, AREA, AND VOLUME.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY - TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW008102

PUBLICATION DATE: MAR 82

TITLE: GUIDE FOR DATA SELECTION/MANIPULATION FOR CHEMFATE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGY; *CHEMISTRY; *CHEMICAL INFORMATION; *CHEMICAL REACTIONS; *CHEMFATE; ENVIRONMENT; *LABORATORY PROCEDURES; *DATABASES; *RESEARCH REPORTS; *STANDARDS

DESCRIPTIVE NOTE: 24P.

ABSTRACT: DESCRIBED ARE THE DATA SELECTION CRITERIA, AREAS

COVERED, AND ENTRY INFORMATION FOR CHEMFATE. CHEMFATE IS A DATABASE PRODUCED BY SYRACUSE RESEARCH CORPORATION THAT CONTAINS CHEMICAL INFORMATION FROM ARTICLES AND RESEARCH REPORTS. DATA IS INCLUDED FROM A VARIETY OF FIELDS INCLUDING DATA FROM LABORATORY ANALYSES, ECOLOGICAL ANALYSES AND MONITORING.

AVAILABILITY: SYRACUSE RESEARCH CORPORATION, MERRILL LANE, SYRACUSE, NY 13210

IRIS ACCESSION NUMBER: EW008137

PUBLICATION DATE: JUL 82

TITLE: CONTROL MEASURES FOR GROUNDWATER VOCS.

PERSONAL AUTHOR: WESTERHOFF, GARY P.; UHL, VINCENT W., JR.

DESCRIPTOR: *CONTAMINANTS; COSTS; DESIGN; DRINKING WATER; GAC; GRANULAR ACTIVATED CARBON; *GROUNDWATER; HYDRAULICS; *MONITORING; *MANAGEMENT; *POLLUTION; *ORGANIC WASTES; *VOC; *VOLATILE SYNTHETIC ORGANIC CHEMICALS; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT; *WELLS

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: THIS REPORT COVERS THE ASSESSMENT AND CONTROL MEASURES NECESSARY FOR TREATMENT OF GROUNDWATER VOLATILE SYNTHETIC ORGANIC CHEMICALS (VOC). ALTERNATIVE CONTROL MEASURES SUCH AS SOURCE ELIMINATION, SOURCE CONTROL, WELL BLENDING TO REDUCE VOC CONCENTRATION, AND TREATMENT METHODS INVOLVING ADSORPTION AND AERATION ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N8

IRIS ACCESSION NUMBER: EW008138

PUBLICATION DATE: JUL 82

TITLE: INTENSIVE FLOW MONITORING--COST-EFFECTIVENESS WITH A QUALITY EDGE.

PERSONAL AUTHOR: KEEFE, PETER M.

DESCRIPTOR: *COSTS; *ENGINEERING; *FLOW MEASUREMENT; *MONITORING; PLANNING; *PERFORMANCE EVALUATION; *SEWERS; *WASTEWATER COLLECTION; *WEIRING

DESCRIPTIVE NOTE: 34-38P.

ABSTRACT: THIS REPORT COMPARES THE COST-EFFECTIVENESS AND ACCURACY OF INTENSIVE FLOW MONITORING VERSUS INTENSIVE WEIRING IN SEWER SYSTEM EVALUATION SURVEYS (SSES). THESE AND OTHER METHODS ARE WEIGHED AGAINST THE DEPTH AND ACCURACY OF THE FINAL SSES, TOTAL COST OF THE SSES, ADEQUACY OF THE FINAL RECOMMENDATIONS IN TERMS OF COSTS, THEIR EFFECT UPON THE SEWER SYSTEM, AND THEIR EFFECT UPON THE ENVIRONMENT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N8

IRIS ACCESSION NUMBER: EW008139
PUBLICATION DATE: JUL 82

TITLE: NEW TECHNOLOGY FOR DRINKING WATER TREATMENT.

PERSONAL AUTHOR: RANDTKE, STEPHEN J.

DESCRIPTOR: *COSTS; *DRINKING WATER; ENGINEERING; *FILTRATION; GAC; GRANULAR ACTIVATED CARBON; ORGANIC POLLUTANTS; *OZONATION; *OPERATIONS (WATER); *REGULATIONS; SLUDGE; *TECHNOLOGICAL ALTERNATIVES; *TECHNOLOGY; *WATER TREATMENT; *WATER QUALITY; WATER SUPPLY

DESCRIPTIVE NOTE: 38-44P.

ABSTRACT: THIS REPORT DISCUSSES RECENT DEVELOPMENTS IN DRINKING WATER TECHNOLOGY SUCH AS: NEW APPLICATIONS OF GRANULAR-ACTIVATED CARBON ADSORPTION, SIGNIFICANT MODIFICATIONS TO CONVENTIONAL TECHNOLOGY INVOLVING DIRECT FILTRATION, OZONE PRETREATMENT FOR GAC ADSORPTION, AND DEVELOPING TECHNOLOGIES INCLUDING SYNTHETIC RESIN ADSORBENTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N8

IRIS ACCESSION NUMBER: EW008140

PUBLICATION DATE: JUL 82

TITLE: WEST RIVER GETS INNOVATIVE TECHNOLOGY.

PERSONAL AUTHOR: MCHUGH, RICHARD; HENDERSON, KENNETH W.

DESCRIPTOR: *CONNECTICUT; *DESIGN; *DIRECT FILTRATION; *DRINKING WATER; ENGINEEERING; EQUIPMENT; *FILTRATION; *MANAGEMENT; *OPERATIONS (WATER); *PROCESS DESIGN; *WATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 47-48P.

ABSTRACT: THIS REPORT DESCRIBES THE PILOT TESTING, DESIGN, AND EQUIPMENT AT THE NEW, HEAVILY AUTOMATED AND FIRST DIRECT FILTRATION WATER TREATMENT PLANT IN CONNECTICUT. THE OPERATIONS AND PROCESSES ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N8

IRIS ACCESSION NUMBER: EW008141

PUBLICATION DATE: JUL 82

TITLE: DIGESTER CONTROL PAYS DIVIDENDS.

PERSONAL AUTHOR: HIGGINS, JAMES; STOLTENBERG, DAVID

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DIGESTERS; *EQUIPMENT; FACILITIES; *MONITORING; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 54-58P.
ABSTRACT: THIS REPORT DESCRIBES THE DEVELOPMENT OF A WORKSHEET AND TECHNIQUE DEVISED TO ACCURATELY DETERMINE THE TOP OF THE SLUDGE LEVEL IN ANAEROBIC DIGESTERS. STAFF AT HINSDALE SANITARY DISTRICT, ILLINOIS DISCUSS THEIR SUPERNATANT QUALITY CONTROL PROGRAM IN TERMS OF MONITORING, SUPERNATANT DRAWOFF, POTENTIAL OPERATING PROBLEMS, AND SUPERNATANT RECYCLING TO HEADWORKS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N8

IRIS ACCESSION NUMBER: EW008165

PUBLICATION DATE: SUM 82

TITLE: RECOVERY AND TREATMENT OF CONTAMINATED GROUND WATER - PART I.

PERSONAL AUTHOR: QUINCE, J. R.; GARDNER, C. L.

DESCRIPTOR: *GROUNDWATER; *MONITORING; *NATURAL RESOURCES; *POLLUTION; *WATER RECOVERY; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 18-22P.

ABSTRACT: THIS ARTICLE IS THE FIRST IN A TWO-PART SERIES. CONSIDERED ARE THE PRINCIPLES AND TECHNIQUES OF GROUNDWATER TREATMENT AND RECOVERY.

AVAILABILITY: GROUND WATER MONITORING REVIEW V2 N3

IRIS ACCESSION NUMBER: EW008166

PUBLICATION DATE: SUM 82

TITLE: PERMEABILITY FROM "MINI-RATE" PUMPING TESTS.

PERSONAL AUTHOR: STAUSBERG, SANFORD I.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *GROUNDWATER; *MONITORING; *POLLUTION; *PERMIABILITY; *PUMPING TESTS; *SAMPLING; *WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 23-26P.

ABSTRACT: A GREATER AWARENESS OF GROUNDWATER POLLUTION HAS MADE RELIABLE PERMIABILITY DETERMINATIONS CRITICAL. THIS ARTICLE CONSIDERS THE USE OF MINI-RATE PUMPING TESTS TO DRIVE THIS INFORMATION.

AVAILABILITY: GROUND WATER MINITORING REVIEW V2 N3

IRIS ACCESSION NUMBER: EW008167

PUBLICATION DATE: SUM 82

TITLE: EVALUATION OF GROUND-WATER PUMPING AND BAILING METHODS--APPLICATION IN THE OIL SHALE INDUSTRY.

PERSONAL AUTHOR: SLAWSON, C. C.; AND OTHERS

DESCRIPTOR: *BAILING; *GROUNDWATER; *OIL SHALE INDUSTRY; *PERFORMANCE EVALUATION; *PUMPING; *SAMPLING; *WATER RESOURCES; *WATER SUPPLY; *WELL CONSTRUCTION; *WATER QUALITY

DESCRIPTIVE NOTE: 27-32P.

ABSTRACT: DESCRIBED ARE A SERIES OF WATER SAMPLES TAKEN TO DETERMINE THE INFLUENCE OF WELL CONSTRUCTION AND SAMPLING METHODS ON TEST RESULTS. TEMPERATURE, PH, SPECIFIC CONDUCTANCE, AND OTHER CONSTITUENTS WERE MEASURED IN SAMPLES DRAWN BY PUMPING AND BAILING.

AVAILABILITY: GROUND WATER MONITORING REVIEW V2 N3

IRIS ACCESSION NUMBER: EW008168

PUBLICATION DATE: SUM 82

TITLE: IMPROVING ACCURACY AND COST-EFFECTIVENESS OF HAZARDOUS WASTE SITE INVESTIGATIONS.

PERSONAL AUTHOR: GLACCUM, ROBERT A.; AND OTHERS
DESCRIPTOR: *CONTAMINATION; *COST-EFFECTIVENESS; *GROUNDWATER; *HAZARDOUS WASTES; *MONITORING; *MONITORING WELLS; *POLLUTION; *SITE INVESTIGATIONS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 36-40P.

ABSTRACT: DISCUSSED IS THE GENERATION OF GEOPHYSICAL METHODS TO ASSIST IN DETERMINING THE OPTIONAL PLACEMENT OF MONITORING WELLS. EXAMPLES OF GEOPHYSICAL-ASSISTED SYSTEMS ARE ALSO OFFERED.

AVAILABILITY: GROUND WATER MONITORING REVIEW V2 N3

IRIS ACCESSION NUMBER: EW008169

PUBLICATION DATE: SUM 82

TITLE: A MULTILEVEL DEVICE FOR MONITORING IN FRACTURED ROCK.

PERSONAL AUTHOR: CHERRY, JOHN A.; JOHNSON, PAUL E.

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *EQUIPMENT; *MONITORING; *SAMPLING; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 41-44P.

ABSTRACT: A NEW DEVICE FOR MONITORING GROUNDWATER QUALITY AND WATER LEVELS IN FRACTURED ROCK IS DESCRIBED AND ANALYZED.

AVAILABILITY: GROUND WATER MONITORING REVIEW V2 N3

IRIS ACCESSION NUMBER: EW008257

PUBLICATION DATE: AUG 82

TITLE: GATE VALVES--MINIATURE 'DAMS' FOR DISTRIBUTION LINES.

PERSONAL AUTHOR: SEEVERS, DICK

DESCRIPTOR: *GATE VALVES; *PIPES; *VALVES; *WATER DISTRIBUTION; *WATER PIPES

DESCRIPTIVE NOTE: 1, 6P.

ABSTRACT: DISCUSSED ARE GATE VALVES, DEVICES MOST COMMONLY USED TO ISOLATE DISTRIBUTION PIPES. THESE VALVES ARE USED TO BLOCK WATER FLOW THROUGH A PIPE.

AVAILABILITY: OPFLOW V8 N8

IRIS ACCESSION NUMBER: EW008258

PUBLICATION DATE: AUG 82
TITLE: ELECTRONIC DATA PROCESSING FOR SMALL SYSTEMS.

PERSONAL AUTHOR: SKEELS, JERRY

DESCRIPTOR: *BILLING; *DATA PROCESSING; *ELECTRONIC DATA PROCESSING; *PERFORMANCE EVALUATION; *RECORD KEEPING; *RECORDS; *WATER SUPPLY

DESCRIPTIVE NOTE: 4-5P.

ABSTRACT: DESCRIBED IS ELECTRONICAL DATA PROCESSING FOR SMALL WATER SYSTEMS.

AVAILABILITY: OPFLOW V8 N8

IRIS ACCESSION NUMBER: EW008259

PUBLICATION DATE: JUL 82

TITLE: BACKWASHING--FLUSHING THE IMPURITIES OUT OF FILTERS.

PERSONAL AUTHOR: HART, D. H., DR.

DESCRIPTOR: *BACKWASHING; *DRINKING WATER; *FILTRATION; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 1, 3P.

ABSTRACT: THIS ARTICLE IS PART TWO OF A TWO-PART ARTICLE ON FILTRATION. THIS ARTICLE DISCUSSES BACKWASHING OF FILTERS USED FOR FILTERING DRINKING WATER.

AVAILABILITY: OPFLOW V8 N7

IRIS ACCESSION NUMBER: EW008260

PUBLICATION DATE: JUL 82

TITLE: MATH AND SCIENCE FOR OPERATORS: BASIC ELECTRICAL THEORY AND TERMINOLOGY.

DESCRIPTOR: *ELECTRICITY; *ELECTRICAL THEORY; *EQUATIONS; *PHYSICS

DESCRIPTIVE NOTE: 4-6P.

ABSTRACT: PRESENTED IS A BRIEF DISCUSSION OF BASIC THEORY, TERMINOLOGY, AND EQUATIONS NEEDED TO UNDERSTAND AND WORK WITH ELECTRICITY IN THE WATER-UTILITY DISTRICT.

AVAILABILITY: OPFLOW V8 N7

IRIS ACCESSION NUMBER: EW008270

PUBLICATION DATE: SEP 82

TITLE: PROTECTING PUBLIC GROUNDWATER SUPPLIES.

PERSONAL AUTHOR: JOSEPHSON, JULIAN

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *MODELING; *NATURAL RESOURCES; *POLLUTION; *REGULATIONS; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 502A-505AP.

ABSTRACT: TOUGH NEW RULES ARE IN PLACE, BUT A BETTER UNDERSTANDING OF CONTAMINANT SOURCES, FATE, AND TRANSPORT IS NEEDED FOR COMPLIANCE AND FOR CONTAINMENT AND MITIGATIVE MEASURES RELATED TO PUBLIC GROUNDWATER SUPPLIES.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY V16 N9

IRIS ACCESSION NUMBER: EW008271

PUBLICATION DATE: SEP 82

TITLE: CONTINUING EDUCATION VIA ELECTRONIC BLACKBOARD.

PERSONAL AUTHOR: DANNA, SAMMY R.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMMUNICATIONS; *CONTINUING EDUCATION; *ELECTRONIC BLACKBOARDS; *COSTS; *INSTRUCTION; *INSTRUCTIONAL MATERIALS

DESCRIPTIVE NOTE: 64-69P.

ABSTRACT: DESCRIBED IS AN ELECTRONIC BLACKBOARD FOR CONTINUING EDUCATION. THE SYSTEM DEVELOPED AT THE UNIVERSITY OF ILLINOIS IS A SYSTEM FOR TRANSMITTING GRAPHICS OVER TELEPHONE LINES. STUDENTS AT REMOTE SITES ALSO HAVE A BOARD OF THEIR OWN FOR RESPONDING TO THE INSTRUCTOR. THE SYSTEM HAS BEEN EVALUATED AS EASY TO USE AND PROVIDES EFFECTIVE INSTRUCTION.

AVAILABILITY: EDUCATION & INDUSTRIAL TELEVISION V14 N9

IRIS ACCESSION NUMBER: EW008272

PUBLICATION DATE: SEP 82

TITLE: A QUESTION OF PERFORMANCE - PART I: THE PROBE MODEL.

PERSONAL AUTHOR: GILBERT, THOMAS F.

DESCRIPTOR: *BEHAVIOR; *BEHAVIORAL ENVIRONMENT; INCENTIVES; KNOWLEDGE; *MANAGEMENT; *MOTIVATION; *PROBE MODEL; *PERFORMANCE EVALUATION; *TRAINING

DESCRIPTIVE NOTE: 21-30P.

ABSTRACT: THE PROBE MODEL OF PROFILING BEHAVIOR HELPS TO DEFINE WORK PLACE PROBLEMS AND SHOWS THE MAJOR BARRIERS TO EXEMPLARY PERFORMANCE.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008273

PUBLICATION DATE: SEP 82

TITLE: BUILD A PERFORMANCE SYSTEM—NOT A TRAINING SYSTEM!

PERSONAL AUTHOR: SOLOMON, GERALD; BOULOUTIAN, ARA

DESCRIPTOR: KNOWLEDGE; *MANAGEMENT; *MOTIVATION; *PERFORMANCE; *PERFORMANCE EVALUATION; *TRAINING

DESCRIPTIVE NOTE: 32-34P.

ABSTRACT: DESCRIBED IS A PERFORMANCE MANAGEMENT SYSTEM. THE MEANS FOR CONSTRUCTING THE SYSTEM IS BASED ON AN ENGINEERING MODEL, THE "SIX-CELL PERFORMANCE ENGINEERING MODEL."

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008274

PUBLICATION DATE: SEP 82

TITLE: GUIDING JOB PERFORMANCE WITH JOB AIDS.

PERSONAL AUTHOR: BULLOCK, DONALD H.
DESCRIPTOR: *DECISION MAKING; *DESIGN; *JOB AIDS; *MANAGEMENT; *PERFORMANCE; *PERFORMANCE EVALUATION; *TRAINING

DESCRIPTIVE NOTE: 36-42P.

ABSTRACT: GUIDING JOB PERFORMANCE WITH JOB AIDS OFFERS A POWERFUL ALTERNATIVE AND SUPPLEMENT TO TRAINING. SOME COMMENTS ON JOB AIDS, THE DESIGN OF JOB AIDS, AND EVALUATION OF JOB AIDS ARE INCLUDED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008275

PUBLICATION DATE: SEP 82

TITLE: THE ABCS OF ISD* (*INSTRUCTIONAL SYSTEMS DESIGN).

PERSONAL AUTHOR: ROSENBERG, MARC J.

DESCRIPTOR: *DESIGN; *DEVELOPMENT; *IMPLEMENTATION; *INSTRUCTION; *INSTRUCTIONAL SYSTEMS; *MODELS; *PERFORMANCE EVALUATION; *TRAINING

DESCRIPTIVE NOTE: 44-50P.

ABSTRACT: DESCRIBED IS AN INSTRUCTIONAL SYSTEMS DESIGN MODEL. THE DISCUSSION INCLUDES DESIGN, DEVELOPMENT, AND IMPLEMENTATION OF THE MODEL.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008276

PUBLICATION DATE: SEP 82

TITLE: A TASK-ANALYTIC APPROACH TO SPECIFYING TECH TRAINING NEEDS.

PERSONAL AUTHOR: MALLORY, W. J.

DESCRIPTOR: *LEARNING; *MANAGEMENT; *PERFORMANCE EVALUATION; *TASK ANALYSIS; *TECHNICAL TRAINING; *TRAINING

DESCRIPTIVE NOTE: 66-72P.

ABSTRACT: DESCRIBED IS A TASK-ANALYTIC APPROACH FOR SPECIFYING TRAINING NEEDS. EMPHASIS IS ON ACHIEVING COMPETENCE ON SPECIFIC TASKS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008277
PUBLICATION DATE: SEP 82

TITLE: REQUIREMENTS FOR EMPLOYERS TO PROVIDE TRAINING AND EDUCATION IN OCCUPATIONAL SAFETY AND HEALTH FOR WORKERS.

PERSONAL AUTHOR: HEATH, EARL D.

DESCRIPTOR: *EDUCATION; *HEALTH; *OHSA; *REGULATIONS; *SAFETY; *TRAINING

DESCRIPTIVE NOTE: 74-80P.

ABSTRACT: OSHA BELIEVES THAT AN INFORMATION AND TRAINING PROGRAM IS ESSENTIAL FOR THE PROTECTION OF EMPLOYEES, BECAUSE AN EMPLOYEE CAN DO MUCH TO PROTECT HIMSELF OR HERSELF, IF AWARE OF THE NATURE OF THE HAZARDS IN THE WORK PLACE. THIS ARTICLE DESCRIBES SOME EMPLOYER REQUIREMENTS REGARDING TRAINING AND EDUCATION.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL V36 N9

IRIS ACCESSION NUMBER: EW008278

PUBLICATION DATE: SEP 82

TITLE: PROGRAMMABLE HAZEN-WILLIAMS.

PERSONAL AUTHOR: STURTZ, ROBERT L.

DESCRIPTOR: *CALCULATORS; *FLUID FLOW; *FRICTION; *EQUATIONS; *HAZEN-WILLIAMS EQUATION; *HYDRAULICS; *PROGRAMS

DESCRIPTIVE NOTE: 33P.

ABSTRACT: DESCRIBED IS THE HAZEN-WILLIAMS HYDRAULICS EQUATION USED TO DETERMINE FRICTION LOSS IN PIPES. A PROGRAM FOR SOME HAND CALCULATORS IS INCLUDED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N10

IRIS ACCESSION NUMBER: EW008279

PUBLICATION DATE: SEP 82

TITLE: TREATED WATER FOREVER PURE?

PERSONAL AUTHOR: STINSON, KARL B.

DESCRIPTOR: *DRINKING WATER; *OPERATIONS (WATER); *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 34, 36, 71P.

ABSTRACT: STORAGE RESERVOIRS AND DISTRIBUTION SYSTEMS CAN EASILY FOUL UP THE QUALITY OF DRINKING WATER PASSING THROUGH THEM. DESCRIBED ARE THINGS THAT MAY CAUSE PROBLEMS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N10

IRIS ACCESSION NUMBER: EW008280
PUBLICATION DATE: SEP 82

TITLE: SPOKANE'S BLUE LAGOON.

PERSONAL AUTHOR: SATY, RICHARD E.

DESCRIPTOR: *DRINKING WATER; *FACILITIES; *MAINTENANCE; *RESERVOIRS; *WATER SUPPLY; *WASHINGTON; *WATER QUALITY

DESCRIPTIVE NOTE: 38, 40P.

ABSTRACT: A COMBINATION OF A LINER AND COVER, WITH ATTENTION TO COLOR AND LIGHTING, SOLVED A DRINKING WATER STORAGE RESERVOIR PROBLEM AT SPOKANE, WASHINGTON.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N10

IRIS ACCESSION NUMBER: EW008281

PUBLICATION DATE: SEP 82

TITLE: THE CCP WAY TO BETTER EFFLUENTS.

PERSONAL AUTHOR: HEGG, BOB A.; AND OTHERS

DESCRIPTOR: *COMPOSITE CORRECTION PROGRAM; *CORRECTIVE ACTION; *EFFLUENT; *FACILITIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); *QUALITY CONTROL; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT
DESCRIPTIVE NOTE: 40-43P.

ABSTRACT: DESCRIBED IS A CORRECTIVE ACTION PROGRAM CALLED COMPOSITE CORRECTION PROGRAM (CCP) TO IMPROVE THE PERFORMANCE OF WASTEWATER TREATMENT PLANTS. THE PROGRAM WAS DEVELOPED AFTER A REVIEWING PROBLEMS OF A LARGE NUMBER OF PLANTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N10

IRIS ACCESSION NUMBER: EW008282

PUBLICATION DATE: SEP 82

TITLE: MICROSCREENING EXPERIENCES.

PERSONAL AUTHOR: CRAVENS, JOE BOB; LAURITCH, WILLIAM A.

DESCRIPTOR: ALGAE; *EFFLUENT; *FILTRATION; INDUSTRIAL WASTES; *MICROSCREENS; *LAGOONS; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44-51P.

ABSTRACT: DESCRIBED IS THE REMOVAL OF LAGOON ALGAE AND UPGRADING OF ADVANCED SECONDARY TREATMENT PROCESSES BY USE OF MICROSCREENING TECHNOLOGY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N10

IRIS ACCESSION NUMBER: EW008322

PUBLICATION DATE: MAY 82

TITLE: ACID PRECIPITATION. 1977-MAY, 1982 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE.)

DESCRIPTOR: *ACID PRECIPITATION; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *ECOLOGY; *ECONOMICS; *ENVIRONMENTAL IMPACTS; *LAKES; *RESEARCH REPORTS; *SOIL; *STREAMS; *VEGETATION; WATER SUPPLY; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 176P. PB82-865890; PRICE CODE: PCN01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE SOURCES, ECOLOGICAL EFFECTS, AND ECONOMIC EFFECTS OF ACID PRECIPITATION. THE EMISSION OF SULFUR AND NITROGEN COMPOUNDS, THE ROLE OF CALCIUM CARBONATE CONCENTRATION ON THE ACIDIFICATION OF LAKES AND STREAMS, AND ITS EFFECTS ON AQUATIC LIFE, ARE CONSIDERED. THE EFFECTS OF ACID PRECIPITATION ON THE SOIL AND VEGETATION ARE ALSO DISCUSSED. (CONTAINS 124 CITATIONS FULLY INDEXED AND INCLUDES A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008367

PUBLICATION DATE: 82

TITLE: WATER FOR WESTERN AGRICULTURE.

PERSONAL AUTHOR: FREDERICK, KENNETH D.; HANSON, JAMES C.

DESCRIPTOR: *AGRICULTURE; *IRRIGATION; *NATURAL RESOURCES; *PLANNING; *WATER RESOURCES; *WATER SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 256P. PRICE: $15.00

ABSTRACT: A PRINCIPAL CONCERN FOR THE 1980S-THE ADEQUACY OF THE NATIONS'S WATER RESOURCES-IS ESPECIALLY CRITICAL IN THE WEST. THERE, A VARIETY OF USERS-FARMERS, INDUSTRY, MUNICIPALITIES, THE ENERGY SECTOR, AND RECREATIONISTS-COMPETE FOR SCARCE SUPPLIES, WHICH IN MANY INSTANCES ARE NONRENEWABLE. IRRIGATION, ACCOUNTING FOR NEARLY 90 PERCENT OF WESTERN WATER CONSUMPTION, HAS BEEN AN IMPORTANT FACTOR IN THE REGION'S DEVELOPMENT AND THE NATION'S AGRICULTURAL PERFORMANCE OVER RECENT DECADES. WHEREAS IN THE PAST, THE GROWTH OF IRRIGATION WAS SPURRED BY ACCESS TO INEXPENSIVE WATER, ITS FUTURE COURSE WILL BE DETERMINED BY VERY DIFFERENT CONDITIONS. THIS RESEARCH PAPER EXAMINES IN DETAIL WHAT FACTORS ARE LIKELY TO AFFECT THE FUTURE OF IRRIGATION IN THE WEST.

AVAILABILITY: THE JOHNS HOPKINS UNIVERSITY PRESS, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW008383

TITLE: ANALYST'S NOTEBOOK.

DESCRIPTOR: *DESIGN; *EQUIPMENT; *LABORATORIES; *PERFORMANCE EVALUATION; *RECORDS; *SAFETY; *STAFFING; *WATER QUALITY

DESCRIPTIVE NOTE: 79-81P.

ABSTRACT: CONTAINED IN THIS DOCUMENT ARE ISSUES OF THE "ANALYST'S NOTEBOOK" FOR 1979-81. ARTICLES INCLUDE ITEMS ON RECORDS, STAFFING, LABORATORY NEEDS, EQUIPMENT, PERFORMANCE EVALUATION, WATER QUALITY CRITERIA, SAFETY, AND LABORATORY DESIGN.

AVAILABILITY: THE BENCH SHEET, 457 WASHINGTON SE, SUITE A-2, ALBUQUERQUE, NM 87108

IRIS ACCESSION NUMBER: EW008386

PUBLICATION DATE: OCT 81

TITLE: LONG-TERM EFFECTS OF SLOW-RATE LAND APPLICATION OF MUNICIPAL WASTEWATER.

PERSONAL AUTHOR: HERSHAFT, ALEX; TRUETT, J. BRUCE

DESCRIPTOR: *AGRICULTURE; *CASE HISTORIES; EFFLUENTS; *ENVIRONMENTAL IMPACTS; GROUNDWATER; HYDRAULICS; *LAND APPLICATION; MONITORING; POLLUTANTS; *RESEARCH REPORTS; SOIL; WASTE HANDLING; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: PB82-105610

ABSTRACT: LONG-TERM EFFECTS OF APPLYING PARTIALLY TREATED MUNICIPAL WASTEWATER TO CROPLANDS WERE EXAMINED AT SIX LOCATIONS IN THE WESTERN UNITED STATES. ALL LOCATIONS HAD RECEIVED WASTEWATER FOR AT LEAST TEN YEARS. EFFECTS ON SOIL, GROUNDWATER, AND CROP TISSUES WERE MEASURED AND COMPARED WITH MEASUREMENTS MADE AT NEARBY CONTROL SITES WHERE CROPS WERE IRRIGATED WITH WELL WATER OR OTHER CONVENTIONAL SOURCES. DATA ON SOME 50 POLLUTANTS AND OTHER PARAMETERS MEASURED AT THE SIX LOCATIONS ARE SUMMARIZED. SLOW-RATE LAND TREATMENT OF MUNICIPAL WASTEWATER IS DEMONSTRATED TO BE AN EFFECTIVE MEANS OF REDUCING THE CONCENTRATION OF MOST CATEGORIES OF POLLUTANTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008387

PUBLICATION DATE: MAY 82

TITLE: SPREADING LAGOONED SEWAGE SLUDGE ON FARMLAND: A CASE HISTORY.

PERSONAL AUTHOR: ROBSON, C. MICHAEL; SOMMERS, LEE E.

DESCRIPTOR: *ANAEROBIC DIGESTION; *CASE HISTORIES; COSTS; *LAND APPLICATION; MONITORING; MUNICIPAL WASTES; PLANNING; POLYCHLORINATED BIPHENYLS; *PROGRAM DESCRIPTIONS; PUBLIC RELATIONS; RECYCLING; REGULATIONS; *RESEARCH REPORTS; SEWAGE; *SLUDGE; *SLUDGE DISPOSAL; *SLUDGE HANDLING; *WASTEWATER TREATMENT; *WASTE DISPOSAL; WASTE HANDLING

DESCRIPTIVE NOTE: PB82-181082

ABSTRACT: THIS REPORT DESCRIBES A CASE HISTORY ON THE USE OF ANAEROBICALLY DIGESTED (STABILIZED) SLUDGE ON AGRICULTURAL LAND. TECHNIQUES WERE DEVELOPED FOR REMOVING, TRANSPORTING, AND APPLYING LAGOONED SLUDGES AND FOR ADMINISTERING AND MONITORING SUCH A PROGRAM. BENEFITS OF LAND APPLICATION OF STABILIZED SLUDGE RESULT FROM USE AS A LOW-ANALYSIS FERTILIZER AND SOIL CONDITIONER. THIS PROJECT DEMONSTRATES HOW A LARGE METROPOLITAN SANITARY DISTRICT (INDIANAPOLIS) CAN TRANSPORT AND APPLY SLUDGE TO CROPLAND IN A NEIGHBORING RURAL AREA WITHOUT WIDESPREAD PUBLIC RESISTANCE. CRITICAL AREAS IDENTIFIED DURING THIS PROJECT INCLUDE MATERIALS HANDLING AND TRANSPORT, PUBLIC RELATIONS, SLUDGE APPLICATION EQUIPMENT, SOIL AND CROP PRODUCTION, SOIL AND GROUNDWATER MONITORING, SLUDGE APPLICATION AND CROP PRODUCTION SCHEDULING, EXPERIENCE IN RELATING TO FARMERS AND THEIR PROBLEMS, AND OBTAINING REGULATORY APPROVALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008389

PUBLICATION DATE: 80

TITLE: NETA PROCEEDINGS OF SECOND NATIONAL WORKSHOP & CONFERENCE - TOWARD MORE EFFECTIVE TRAINING.

DESCRIPTOR: *CASE STUDIES; *CONFERENCE PROCEEDINGS; EDUCATIONAL PROGRAMS; *ENVIRONMENTAL TECHNICIANS; *MANAGEMENT; *MANPOWER DEVELOPMENT; *NETA; ASSESSMENT; *OPERATIONS (WASTEWATER); PROGRAM DESCRIPTIONS; *TRAINING NEEDS; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 156P. PRICE: NETA MEMBER: $9.00; NON-MEMBER: $11.00; POSTAGE AND HANDLING: $2.50

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE SECOND NATIONAL WORKSHOP AND CONFERENCE OF THE NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION. THE THEME OF THE CONFERENCE IS TOWARD MORE EFFECTIVE TRAINING. EIGHTEEN PAPERS ARE INCLUDED THAT ADDRESS A WIDE RANGE OF TOPICS INCLUDING EVALUATION, TROUBLESHOOTING, TRAINING MATERIALS, CASE STUDIES, TRAINING NEEDS, AND TRAINING PROGRAMS FOR WASTEWATER TREATMENT OPERATIONS.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION (NETA), 158 S. NAPOLEON ST., SUITE 102, P. O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW008390
PUBLICATION DATE: 81

TITLE: PROCEEDINGS OF THIRD NATIONAL WORKSHOP & CONFERENCE - TRAINING THE ENVIRONMENTAL TRAINER FOR THIS DECADE.

DESCRIPTOR: CASE STUDIES; *CONFERENCE PROCEEDINGS; *EDUCATIONAL PROGRAMS; *ENVIRONMENTAL TECHNICIANS; *INSTRUCTION; *MANAGEMENT; *MANPOWER DEVELOPMENT; *NETA; *OPERATOR TRAINING; *PROGRAM DESCRIPTIONS; *TRAINING NEEDS; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 246P. PRICE: NETA MEMBER: $10.00, NON-MEMBER: $12.00; POSTAGE AND HANDLING: $2.50

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE THIRD NATIONAL WORKSHOP AND CONFERENCE OF THE NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION. THE THEME OF THE CONFERENCE IS TRAINING THE ENVIRONMENTAL TRAINER FOR THIS DECADE. TWENTY-FIVE PAPERS ARE INCLUDED THAT ADDRESS A WIDE RANGE OF TOPICS INCLUDING TRAINING MODELS, MANAGEMENT ISSUES, CASE STUDIES, TRAINING MATERIALS, AND NEEDS ASSESSMENT.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION (NETA), 158 S. NAPOLEON ST., SUITE 102, P. O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW008391

PUBLICATION DATE: JUL 82

TITLE: BETTER PLANNING CAN REDUCE SIZE OF WASTEWATER TREATMENT FACILITIES, SAVING MILLIONS IN CONSTRUCTION COSTS.

DESCRIPTOR: *CONSTRUCTION; *COST EFFECTIVENESS; COSTS; *DESIGN; *EVALUATION; *FACILITIES; FEDERAL GRANTS; *PLANNING; POLICY ANALYSIS; POLLUTION CONTROL; *REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 33P.

ABSTRACT: THIS REPORT DISCUSSES WAYS THE ENVIRONMENTAL PROTECTION AGENCY, THROUGH APPLICATION OF EXISTING FEDERAL REGULATIONS, CAN REDUCE BOTH THE SIZE AND COST OF CONSTRUCTING TREATMENT FACILITIES. THIS REVIEW EVALUATES THE EFFECTIVENESS OF THE FACILITY PLANNING PROCESS FOR CONSTRUCTING TREATMENT PLANTS AND TO DETERMINE WHETHER CHANGED CONDITIONS, SUCH AS INCREASES OR DECREASES IN POPULATION PROJECTIONS OR INDUSTRIAL FLOW FOR THE PROPOSED SERVICE AREA, WERE RECOGNIZED AND INCORPORATED INTO THE FACILITY PLANS BEFORE THE PLANT WAS DESIGNED OR BEFORE CONSTRUCTION STARTED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICE FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW008392
PUBLICATION DATE: JUL 82

TITLE: LOSS OF EXPERIENCED STAFF AFFECTS CONSERVATION AND RENEWABLE ENERGY PROGRAMS.

DESCRIPTOR: ADMINISTRATION; CONSERVATION; *DEPARTMENT OF ENERGY; *ENERGY CONSERVATION; *FEDERAL GOVERNMENT; MANAGEMENT; *MANPOWER; *PERFORMANCE EVALUATION; *PERSONNEL; *PROGRAM DESCRIPTIONS; *RENEWABLE ENERGY SOURCES; STAFF ASSESSMENT; STAFF UTILIZATION

DESCRIPTIVE NOTE: 21P.

ABSTRACT: THIS REPORT PRESENTS THE RESULTS OF A REVIEW OF THE STAFFING OF THE DEPARTMENT OF ENERGY'S CONSERVATION AND RENEWABLE ENERGY PROGRAMS. THE REPORT CONTAINS (1) DATA ON OVERALL STAFFING TRENDS FOR THE OFFICE OF THE ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY, (2) AN ANALYSIS OF STAFFING CHANGES RESULTING FROM THE FISCAL YEAR 1981 REDUCTIONS IN FORCE AND RESIGNATIONS IN THE ASSISTANT SECRETARY'S THREE MAJOR PROGRAM OFFICES AND IN THE FIELD OFFICES ADMINISTERING THESE PROGRAMS, AND (3) AN ANALYSIS OF THE IMPLICATIONS THESE STAFFING CHANGES HAVE FOR THE ADMINISTRATION AND MANAGEMENT OF THESE OFFICES' PROGRAMS.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW008393

PUBLICATION DATE: 10-11 82

TITLE: NEW USES FOR THE BOD, PART 1.

PERSONAL AUTHOR: CLARK, DOUGLAS W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BOD; *COD; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; *TOC; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 5-6P.

ABSTRACT: DISCUSSED ARE BOD, COD, AND TOC AND THEIR RELATIONSHIP TO WASTEWATER AND WASTEWATER TREATMENT.

AVAILABILITY: THE BENCH SHEET, V4 N5

IRIS ACCESSION NUMBER: EW008394

PUBLICATION DATE: OCT 82

TITLE: KEEPING TRACK OF THE BUGS: AN OPERATOR'S GUIDE TO UNDERSTANDING THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: NIEDRINGHAUS, E. LANDON

DESCRIPTOR: *ACTIVATED SLUDGE; *BIOLOGY; *INSTRUCTIONAL

MATERIALS; *MICROBIOLOGY; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 7-11P.

ABSTRACT: MANY WASTEWATER TREATMENT OPERATORS HAVE NOT RECEIVED ADEQUATE INSTRUCTION REGARDING THE ACTIVATED SLUDGE PROCESS. THIS ARTICLE PROVIDES A DISCUSSION OF THE PROCESS AND INTERRELATED VARIABLES IN THE PROCESS. A RELATIVE PREDOMINANCE DIAGRAM IS USED AS A BASIS FOR THE DISCUSSION.

AVAILABILITY: DEEDS AND DATA, V19 N10

IRIS ACCESSION NUMBER: EW008395

PUBLICATION DATE: OCT 82

TITLE: CAREFUL PROCEDURES NEEDED IN DETERMINING BOD.

PERSONAL AUTHOR: CARUSO, MATTHEW

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOASSAY; *BIOCHEMICAL OXYGEN DEMAND; BOD; *BACTERIA; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *TROUBLESHOOTING

DESCRIPTIVE NOTE: 12-15P.

ABSTRACT: THIS ARTICLE PRESENTS A DISCUSSION OF BOD DETERMINATION AND THREE TROUBLESHOOTING CHARTS FOR USE IN CORRECTING BOD ANALYSES. BECAUSE THE BOD DETERMINATION IS REALLY A BIOASSAY, CLOSE CONTROL IS REQUIRED OVER THE BACTERIA'S ENVIRONMENT, OXYGEN SUPPLY, AND FOOD SOURCES.

AVAILABILITY: DEEDS AND DATA V19 N10

IRIS ACCESSION NUMBER: EW008396

PUBLICATION DATE: OCT 82

TITLE: CERTIFICATION QUIZ.

DESCRIPTOR: *CERTIFICATION; *EVALUATION; *OPERATORS; *TESTS; *TEST ITEMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16P.

ABSTRACT: CONTAINED IN THIS ARTICLE ARE 11 QUIZ QUESTIONS RELATED TO CERTIFICATION FOR WASTEWATER OPERATORS.

AVAILABILITY: DEEDS AND DATA V19 N10

IRIS ACCESSION NUMBER: EW008397

PUBLICATION DATE: OCT 82

TITLE: HEALTH EFFECTS OF DRINKING WATER DISINFECTANTS AND DISINFECTANT BY-PRODUCTS.

PERSONAL AUTHOR: BULL, RICHARD J.

DESCRIPTOR: CHLORAMINES; CHLORINE DIOXIDE; DATA ANALYSIS; *DISINFECTANTS; *DISINFECTION; *DRINKING WATER; *HEALTH EFFECTS; OZONE; PUBLIC HEALTH; *RESEARCH REPORTS; *TOXICOLOGY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 554A-559AP.

ABSTRACT: THIS ARTICLE PRESENTS A CRITICAL VIEW OF THE HEALTH EFFECTS OF DRINKING WATER DISINFECTANTS AND DISINFECTANT BY-PRODUCTS WITH AN EMPHASIS ON ACUTE TOXICOLOGICAL HAZARDS, CHRONIC TOXICITIES, AND CARCINOGENIC HAZARDS. THIS ARTICLE ATTEMPTS TO REVIEW THE STATUS OF THESE PROBLEMS, TO DISCUSS SOME OF THE MORE RECENT DATA BEARING ON THE ISSUE, AND FINALLY TO IDENTIFY THOSE DATA GAPS THAT CURRENTLY PREVENT A CLEAR RESOLUTION OF THIS PROBLEM.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N10

IRIS ACCESSION NUMBER: EW008398

PUBLICATION DATE: SEP 82

TITLE: POLLUTION AND ENERGY MANAGEMENT THROUGH THE ANAEROBIC APPROACH.

PERSONAL AUTHOR: SZENDREY, L. MICHAEL; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; CASE STUDIES; COST EFFECTIVENESS; DESIGN; *DISTILLERY WASTES; *ENERGY CONSERVATION; EQUIPMENT; FACILITIES; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *POLLUTION CONTROL; *PROCESS DESCRIPTIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 31-34P.

ABSTRACT: THIS ARTICLE DESCRIBES IN DETAIL THE USE OF AN ANAEROBIC REACTOR FOR TREATING WASTEWATER AND CONVERTING DISTILLERY WASTES INTO USABLE METHANE GAS. THE 3 MILLION GALLON FIXED MEDIA ANAEROBIC REACTOR SUPPLIES THE EQUIVALENT OF 600 MILLION BTU DAILY TO THE DISTILLERY BOILERS WHILE PRODUCING EFFLUENTS THAT EXCEED REGULATORY REQUIREMENTS. TOPICS ADDRESSED IN THIS ARTICLE INCLUDE PROJECT REQUIREMENTS, PROCESS SELECTION, RAW WASTE CHARACTERISTICS, OPERATING CONDITIONS, EQUIPMENT, AUXILIARY SYSTEMS, PILOT PLANT, OPERATING COSTS, AND INDUSTRIAL APPLICATIONS.

AVAILABILITY: INDUSTRIAL WASTE, V28 N5

IRIS ACCESSION NUMBER: EW008399

PUBLICATION DATE: SEP 82

TITLE: CALIFORNIA'S SMALL WATER SYSTEMS PROGRAM: INSPECTIONS UP 60%; MAJOR DEFICIENCIES DOWN 37%.

PERSONAL AUTHOR: ROBERTS, RICHARD L.; MCGURK, JACK S.

DESCRIPTOR: *CALIFORNIA; *CASE STUDIES; COST EFFECTIVENESS; *DRINKING WATER; LOCAL GOVERNMENT; *PROGRAM DESCRIPTIONS; PUBLIC HEALTH; *SMALL WATER SYSTEMS; STATE GOVERNMENT; *STATE PROGRAMS; TRAINING PROGRAMS; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 80-82P.

ABSTRACT: RECOGNITION OF THE NEED TO IMPROVE THE SMALL WATER SYSTEMS OF THE COUNTRY BECAME EVIDENT IN 1969 WHEN A NATIONAL SURVEY CONDUCTED BY THE ENVIRONMENTAL PROTECTION AGENCY CONCLUDED THAT, BECAUSE OF SANITARY DEFICIENCIES, SMALL WATER SYSTEMS ARE A HIGH PRIORITY. A PLAN FOR THE USE OF EPA GRANT FUNDS FOR SMALL WATER SYSTEMS SURVEILLANCE WAS DEVELOPED BY THE CALIFORNIA CONFERENCE OF DIRECTORS OF ENVIRONMENTAL HEALTH AND THE STATE'S DEPARTMENT OF HEALTH SERVICES. DUE TO LIMITED FUNDING AND THE NEED FOR STATEWIDE APPLICATION OF THE PROGRAM, A COOPERATIVE AGREEMENT BETWEEN THE STATE AND LOCAL ENVIRONMENTAL HEALTH JURISDICTIONS WAS REACHED. THIS PAPER DESCRIBES THIS RELATIONSHIP BETWEEN STATE AND LOCAL GOVERNMENT AND THE SUCCESS IN IMPROVING THE QUALITY OF WATER SERVED BY SMALL WATER SYSTEMS IN CALIFORNIA. THIS JOINT LOCAL/STATE APPROACH IS BELIEVED TO BE AN EFFICIENT AND COST-EFFECTIVE METHOD OF ASSURING THE PUBLIC OF SAFE DRINKING WATER ON A STATEWIDE BASIS.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V45 N2

IRIS ACCESSION NUMBER: EW008400

PUBLICATION DATE: SEP 82

TITLE: AEROBIC ON-SITE SYSTEMS STUDIED IN NEW MEXICO.

PERSONAL AUTHOR: ASBURY, RICHARD; HENDRICKSON, CHARLES

DESCRIPTOR: *AEROBIC SYSTEMS; AEROBIC TANKS; *CASE STUDIES; EQUIPMENT; HOMES; MAINTENANCE; NOISE; ODORS; *PERFORMANCE EVALUATION; *RESIDENTIAL SYSTEMS; *SURVEYS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 86-87P.

ABSTRACT: THIS ARTICLE REPORTS ON A SURVEY DONE IN NEW MEXICO WHICH EXAMINED THE STATUS OF OPERATION OF ON-SITE RESIDENTIAL AEROBIC UNITS. OF 36 UNITS EXAMINED, ONLY 8 WERE OPERATING. PROBLEMS WITH AEROBIC ON-SITE SYSTEMS IDENTIFIED IN THE STUDY INCLUDE ODORS, NOISE, AND MAINTENANCE.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V45 N2

IRIS ACCESSION NUMBER: EW008401

PUBLICATION DATE: OCT 82

TITLE: WATER DISTRIBUTION SYSTEMS: A SPATIAL AND COST EVALUATION.

PERSONAL AUTHOR: CLARK, ROBERT M.; AND OTHERS

DESCRIPTOR: *COSTS; *DRINKING WATER; *ECONOMICS; *MAINTENANCE; *PLANNING; *PIPES; *PUBLIC HEALTH; *PIPE REPLACEMENT; *RESEARCH REPORTS; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 243-256P.

ABSTRACT: PROBLEMS ASSOCIATED WITH MAINTAINING AND REPLACING WATER SUPPLY DISTRIBUTION SYSTEMS ARE REVIEWED. SOME OF THESE PROBLEMS ARE ASSOCIATED WITH PUBLIC HEALTH, ECONOMIC AND SPATIAL DEVELOPMENT OF THE COMMUNITY, AND COSTS OF REPAIR AND REPLACEMENT OF SYSTEM COMPONENTS. ESTABLISHING A TIMELY MAINTENANCE AND REPLACEMENT PROGRAM IS EXTREMELY IMPORTANT.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION V108 NWR3

IRIS ACCESSION NUMBER: EW008402

PUBLICATION DATE: OCT 82

TITLE: WORTH OF INFLOW FORECAST FOR RESERVOIR OPERATION.

PERSONAL AUTHOR: YEH, WILLIAM W-G.

DESCRIPTOR: *ENERGY; *FLOOD CONTROL; *FORECASTING; *HYDROELECTRIC POWER; *IRRIGATION; *MODELING; *NATURAL RESOURCES; *RESERVOIRS; *STREAMFLOW; *SURFACE RUNOFF; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 257-269P.

ABSTRACT: THIS STUDY ASSESSES IMPROVED BENEFITS THAT MIGHT BE GAINED FROM THE USE OF LONG-RANGE STREAMFLOW FORECASTS IN THE OPERATION OF A TYPICAL MULTIPURPOSE RESERVOIRS.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION V108 NWR3

IRIS ACCESSION NUMBER: EW008403

PUBLICATION DATE: OCT 82

TITLE: MODEL FOR OPTIMAL SIZE AND LOCATION OF DETENTION.

PERSONAL AUTHOR: MAYS, LARRY W.; BEDIENT, PHILLIP B.

DESCRIPTOR: *COSTS; *DESIGN; *DETENTION BASINS; *MODELS; *RESERVOIRS; *SURFACE RUNOFF; *WATER COLLECTION; *WATERSHEDS; *URBAN AREAS

DESCRIPTIVE NOTE: 270-285P.

ABSTRACT: AN OPTIMIZATION MODEL HAS BEEN DEVELOPED FOR DETERMINING THE MINIMUM COST, SIZE, AND LOCATION OF DETENTION BASINS FOR URBAN WATERSHEDS.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION V108 NWR3

IRIS ACCESSION NUMBER: EW008404

PUBLICATION DATE: OCT 82

TITLE: ECONOMIC ANALYSIS OF REHABILITATION OF WATER MAINS.

PERSONAL AUTHOR: WALSKI, THOMAS M.

DESCRIPTOR: *COST-BENEFIT; *COSTS; *CLEANING; *DECISION MAKING; *MAINTENANCE; *PIPES; *RELINING; *WATER PIPES; *WATER SUPPLY

DESCRIPTIVE NOTE: 296-308P.

ABSTRACT: CRITERIA ARE PRESENTED DETERMINING IF IT IS ECONOMICAL TO CLEAN AND RELINE WATER TRANSMISSION PIPES. IT NORMALLY IS ECONOMICAL IF COSTS ARE LESS THAN THE SAVINGS IN ENERGY AND PUMPING CAPACITY WHICH OCCUR BECAUSE OF THE INCREASED CARRYING CAPACITY OF THE PIPE.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION V108 NWR3

IRIS ACCESSION NUMBER: EW008405

PUBLICATION DATE: OCT 82

TITLE: FACT SHEET FOR WASTEWATER TREATMENT.

DESCRIPTOR: CONSTRUCTION GRANTS; *DATA COLLECTION; EFFLUENT; *FACILITIES; *INFORMATION SOURCES; NPDES; PROGRAM DESCRIPTIONS; *REFERENCE MATERIALS; SEWER SYSTEMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1346-1348P.

ABSTRACT: THIS ARTICLE CONTAINS A WIDE VARIETY OF FACTS PERTAINING TO WASTEWATER TREATMENT. DATA ARE PRESENTED FOR NUMBERS AND TYPES OF TREATMENT FACILITIES, TREATMENT PLANT PERFORMANCE AND FLOWS, EFFLUENT DISCHARGES, CONSTRUCTION GRANTS PROGRAM, AND THE NPDES PROGRAM.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008406

PUBLICATION DATE: OCT 82

TITLE: NPDES RULES FOR INDUSTRIAL DISCHARGERS: NEW OBLIGATIONS, NEW OPPORTUNITIES.

PERSONAL AUTHOR: FRYE, RUSSELL S.

DESCRIPTOR: CLEAN WATER ACT; *EFFLUENTS; *ENVIRONMENTAL PROTECTION AGENCY; INDUSTRIAL WASTES; *NPDES; *PERMITS; POLICY FORMATION; *POLLUTION CONTROL; *PROGRAM DESCRIPTIONS; *REGULATIONS; STANDARDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1349-1354P.

ABSTRACT: THIS ARTICLE PRESENTS A CURRENT REVIEW OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND THE IMPLEMENTATION OF THIS PROGRAM BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY. THIS ARTICLE SUMMARIZES THE MOST IMPORTANT ASPECTS OF THE EXISTING REGULATIONS, NOTES THE EXPECTED CHANGES, AND SUGGESTS SOME STRATEGIES FOR OBTAINING THE MOST REASONABLE PERMIT CONDITIONS WITHIN THIS REGULATORY SCHEME.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008407

PUBLICATION DATE: OCT 82

TITLE: REALISTIC SLUDGE PRODUCTION FOR ACTIVATED SLUDGE PLANTS WITHOUT PRIMARY CLARIFIERS.

PERSONAL AUTHOR: SCHULTZ, JAMES R.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *CLARIFICATION; DESIGN; *FACILITIES; *PERFORMANCE EVALUATION; *PRIMARY TREATMENT; *OPERATIONS (WASTEWATER); RESEARCH REPORTS; *SLUDGE; SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1355-1360P.

ABSTRACT: AFTER EVALUATING NEARLY 200 WASTEWATER TREATMENT PLANTS IN THE U.S., THE AUTHORS FOUND INADEQUATE SLUDGE HANDLING FACILITIES TO BE ONE OF THE MOST COMMON AND CRITICAL PERFORMANCE-LIMITING PROBLEMS. IN THIS PAPER ACTUAL SLUDGE PRODUCTION DATA FOR OVER 1,000 OPERATING WEEKS IN 16 PLANTS PROVIDE AN INCENTIVE AND BASIS FOR DESIGNING GOOD SLUDGE HANDLING FACILITIES FOR ACTIVATED SLUDGE PLANTS WITHOUT PRIMARY CLARIFIERS. RESULTS SHOW OVERALL SLUDGE PRODUCTION IN WELL-PER-FORMING PLANTS WAS SIGNIFICANTLY GREATER THAN VALUES COMMONLY USED FOR DESIGN. TOTAL SLUDGE PRODUCTION TYPICALLY AVERAGED 0.4 KG TOTAL SUSPENDED SOLIDS PER KG BIOCHEMICAL OXYGEN DEMAND (0.8 TO 1.0 LB/LB) REMOVED AND VARIED CONSIDERABLY FROM MONTH TO MONTH IN AN INDIVIDUAL PLANT. LONG AERATION DETENTION TIMES, LOW F/M RATIOS, AND HIGH SLUDGE AGES DID NOT SUBSTANTIALLY REDUCE SLUDGE PRODUCTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008408

PUBLICATION DATE: OCT 82

TITLE: RELATION OF INFLOW/INFILTRATION COSTS TO VARYING POLICY REQUIREMENTS.

PERSONAL AUTHOR: WILKOWSKY, DANIEL I.; AND OTHERS

DESCRIPTOR: *CALIFORNIA; *CASE STUDIES; *COSTS; *DESIGN; *ECONOMIC FACTORS; FACILITIES; *INFILTRATION; *OVERFLOWS; PLANNING; *POLICY; REGULATIONS; *SAN FRANCISCO; STORM WATER;

*SIMULATIONS; *WASTEWATER COLLECTION; *WASTEWATER STORAGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1361-1375P.

ABSTRACT: THE EAST BAY MUNICIPAL UTILITY DISTRICT IS RESPONSIBLE FOR INTERCEPTION AND TREATMENT OF WASTEWATER FLOWS FROM A 215-KM2 (83-SQ MILE) TRIBUTARY AREA ALONG THE EAST SHORE OF SAN FRANCISCO BAY. DURING PERIODS OF INTENSE WET WEATHER, RAINFALL ENTERING THE SANITARY WASTEWATER COLLECTION SYSTEM AS EXCESSIVE INFILTRATION AND INFLOW EXCEEDS THE CAPACITY OF EXISTING CONVEYANCE AND TREATMENT FACILITIES. CONSEQUENTLY, OVERFLOWS OF WASTEWATER MIXED WITH STORM WATER ARE DIVERTED INTO SAN FRANCISCO BAY 10 TO 12 TIMES PER YEAR. STORAGE AND TREATMENT ALTERNATIVES TO REDUCE POLLUTANTS BEING DISCHARGED ARE CURRENTLY BEING INVESTIGATED BY THE DISTRICT. EXTENSIVE COMPUTER SIMULATIONS OF FLOW AND QUALITY WITHIN THE INTERCEPTOR SYSTEM AND IN SAN FRANCISCO BAY ARE BEING CONDUCTED. THE REGULATORY FRAMWORK, WITHIN WHICH WET-WEATHER FACILITIES PLANNING IS BEING DEVELOPED, IS BASED ON A COMPREHENSIVE REGIONAL PLANNING EFFORT (THE SAN FRANCISCO BAY BASIN PLAN) THAT ADDRESSED WATER QUALITY CONSIDERATIONS IN THE BAY IN THE EARLY 1970S AND DEVELOPED A MAINTENANCE-LEVEL CONCEPT FOR PROTECTING BENEFICIAL USES. THE PLANNING EFFORT IS IDEAL, IN THAT, RATHER THAN SPECIFYING FACILITIES TO MEET ARBITRARY STANDARDS, IT PROVIDES THE FRAMEWORK FOR A DIALOGUE WITH REGULATORY AGENCIES. THIS PAPER HIGHLIGHTS THE POLICY DIALOGUE AND THE COSTS OF POLICY REQUIREMENTS ALLOWED BY THIS FLEXIBLE PLANNING FRAMEWORK.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008409

PUBLICATION DATE: OCT 82

TITLE: COMPARISON OF FINAL CLARIFIER DESIGN TECHNIQUES.

PERSONAL AUTHOR: WILSON, THOMAS E.; LEE, JONG S.

DESCRIPTOR: *ACTIVATED SLUDGE; *CLARIFIERS; *DESIGN; INITIAL SETTLING VELOCITY; LIMITING FLUX THEORY; *PERFORMANCE EVALUATION; *SETTLING; SLUDGE TREATMENT; TECHNIQUES; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1376-1381P.

ABSTRACT: TWO ACTIVATED SLUDGE FINAL CLARIFIER DESIGN TECHNIQUES-THE LIMITING FLUX THEORY AND THE INITIAL SETTLING VELOCITY (ISV) TECHNIQUE-HAVE BEEN INVESTIGATED AND A COMPARISON MADE FOR A MIXED LIQUOR. USING ONLY SETTLING VELOCITY DATA AND DIAGRAMS PRESENTED IN THIS PAPER, A DESIGNER CAN BOTH RIGOROUSLY APPLY LIMITING FLUX THEORY AND KNOW HOW MUCH LARGER A GIVEN CLARIFIER IS THAN THE MINIMUM.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008410

PUBLICATION DATE: OCT 82

TITLE: OXYGEN ACTIVATED SLUDGE: DESIGN FOR INDUSTRIAL AND MUNICIPAL WASTES.

PERSONAL AUTHOR: STUKENBERG, JOHN R.

DESCRIPTOR: *ACTIVATED SLUDGE; *CASE STUDIES; *DESIGN; *FACILITIES; *INDUSTRIAL WASTES; *KANSAS CITY; *MISSOURI; *MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); *OXYGENATION; PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1382-1387P.

ABSTRACT: THE NORTH KANSAS CITY, MO., WASTEWATER TREATMENT PLANT WILL BE UPGRADED TO SECONDARY TREATMENT THROUGH THE CONSTRUCTION OF A COVERED-BASIN, HIGH-PURITY OXYGEN-ACTIVATED SLUDGE (HPOAS) SYSTEM. PROCESS DESIGN OF THE HPOAS SYSTEM WAS ACCOMPLISHED USING COMPLETE MIXING ACTIVATED SLUDGE RELATIONSHIPS AND FUNDAMENTAL OXYGEN TRANSFER RELATIONSHIPS. THE PARAMETERS DETERMINED INCLUDED EFFLUENT SOLUBLE BOD, MIXED LIQUOR SOLIDS RETENTION TIME, OXYGEN UPTAKE RATE, AND REQUIREMENTS FOR OXYGEN AND DISSOLUTION POWER. THE RESULTS FROM THIS APPROACH COMPARED FAVORABLY WITH DESIGN PARAMETERS DETERMINED BY THE OXYGEN EQUIPMENT VENDOR.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008411

PUBLICATION DATE: OCT 82

TITLE: SELECTION OF OPTIMUM STORM FREQUENCY FOR SEWER STUDIES.

PERSONAL AUTHOR: NOGAJ, RICHARD J.; BRAAM, GEORGE A.

DESCRIPTOR: *COST-EFFECTIVENESS; *COSTS; *DESIGN; *FACILITIES; *INFILTRATION; MATHEMATICAL APPLICATIONS; *PRECIPITATION; *SEWERS; *SEWER SYSTEMS; *STORM WATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 1401-1407P.

ABSTRACT: STUDIES HAVE SHOWN THAT IN SEPARATE SANITARY SEWER SYSTEMS A RELATIONSHIP EXISTS BETWEEN INFLOW AND RAINFALL INTENSITY WHERE INFLOW INCREASES EXPONENTIALLY WITH STORM INTENSITY. FOR THE PURPOSE OF DEVELOPING A REHABILITATION PROGRAM FOR A SANITARY SEWER SYSTEM, A LEVEL OF DESIGN PROTECTION, BASED ON THE FREQUENCY OF A STORM EVENT, MUST BE SELECTED. MARGINAL COST ANALYSIS WAS USED TO DEVELOP THE UNIT COST TO PREVENT SURCHARGE OCCURRENCE AT FLOWS THAT EXCEED THE SYSTEM DESIGN CAPACITY FOR EACH STORM FREQUENCY. A COMPARISON OF UNIT COSTS TO STORM FREQUENCIES INDICATED A NONLINEAR RELATIONSHIP. THE OPTIMUM STORM FREQUENCY WAS SELECTED FROM THE "KNEE OF THE CURVE" WHERE THE UNIT COST INCREASED MORE RAPIDLY THAN THE TOTAL COST. THIS POINT REPRESENTS A BASIS FOR COST-EFFECTIVE STORM

PROTECTION THAT COULD BE PROVIDED IN A SEPARATE SANITARY SEWER SYSTEM.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N10

IRIS ACCESSION NUMBER: EW008412

PUBLICATION DATE: OCT 82

TITLE: MICROCOMPUTERS PROVIDE COST-EFFECTIVE ENVIRONMENT MONITORING FOR POLLUTION CONTROL.

PERSONAL AUTHOR: SCHREYER, ANDREAS

DESCRIPTOR: *COMPUTER APPLICATIONS; COMPUTERS; *COST EFFECTIVENESS; *EMISSIONS; EQUIPMENT; *INSTRUMENTATION; *MICROCOMPUTERS; MICROPROCESSORS; *MINING; *MONITORING; POLLUTANTS; *POLLUTION CONTROL; *TECHNOLOGICAL ADVANCEMENTS; TECHNOLOGY

DESCRIPTIVE NOTE: 177-180P.

ABSTRACT: THIS ARTICLE DESCRIBES IN DETAIL THE COMPONENTS AND OPERATION OF A MICROPROCESSOR-BASED ENVIRONMENTAL MONITORING SYSTEM CURRENTLY BEING USED AT AN OPEN-PIT COPPER MINE. CONCENTRATIONS OF SULFUR DIOXIDE AND OTHER ATMOSPHERIC PARAMETERS ARE MONITORED ON A 1200 SQUARE MILE AREA AROUND A SMELTER BY A SYSTEM THAT EMPLOYS STANDARD COMPONENTS AND HIGH LEVEL LANGUAGE PROGRAMMING. THE SYSTEM IS BASED IN A DISTRIBUTED-INTELLIGENCE ARCHITECTURE FOR MODULARITY AND RELIABILITY.

AVAILABILITY: MINI-MICRO SYSTEMS, VXV N10

IRIS ACCESSION NUMBER: EW008413

PUBLICATION DATE: SEP 82

TITLE: USING SLUDGE ON LAND RAISES MORE THAN CROPS.

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *AGRICULTURE; *ECONOMICS; *HEALTH; *LAND APPLICATION; *NITRATES; *PATHOGENS; *PUBLIC HEALTH; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 27-30P.

ABSTRACT: AGRICULTURAL USE OF SEWAGE SLUDGE HAS SEVERAL BENEFITS INCLUDING THE RECYCLING OF ESSENTIAL AND TRACE NUTRIENTS, IMPROVEMENT OF MARGINAL SOIL WITH ORGANIC MATTER, INCREASED CROP YIELD, AND DIRECT COSTS COMPARABLE TO COMMERCIAL FERTILIZERS. BESIDES THE RISK OF METAL CONTAMINATION, THE OVERALL ENVIRONMENTAL IMPACT OF SLUDGE APPLICATION MUST ALSO CONSIDER NITRATE POLLUTION AND THE SPREAD OF PATHOGENIC ORGANISMS.

AVAILABILITY: POLLUTION ENGINEERING, V14 N9

IRIS ACCESSION NUMBER: EW008414

PUBLICATION DATE: SEP 82

TITLE: AUTOMATED SAMPLING SYSTEM MORE RELIABLE THAN OLD MISS.

PERSONAL AUTHOR: FRATUS, JOHN V.

DESCRIPTOR: *COMPLIANCE; *CORN INDUSTRY; *EFFLUENTS; *INDUSTRIAL WASTES; *IWOA; *MONITORING; *OPERATIONS (WASTEWATER); *SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32-34P.

ABSTRACT: DESCRIBED IS AN EFFLUENT MONITORING SYSTEM OF A CORN WET MILLING OPERATION IN IOWA. THE SAMPLER SYSTEM HAS FUNCTIONED EFFECTIVELY WITH LITTLE MAINTENANCE.

AVAILABILITY: POLLUTION ENGINEERING, V14 N9

IRIS ACCESSION NUMBER: EW008415

PUBLICATION DATE: SEP 82

TITLE: DON'T DRINK YOUR WASTEWATER: CHECK FOR IN-PLANT CROSS-CONNECTIONS.

PERSONAL AUTHOR: RENNER, DONALD

DESCRIPTOR: *CROSS-CONNECTIONS; *DRINKING WATER; *CONTAMINATION; *HEALTH; *PIPES; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER SYSTEMS

DESCRIPTIVE NOTE: 38-41P.

ABSTRACT: THIS ARTICLE DESCRIBES POTENTIAL PROBLEMS OF CROSS-CONNECTIONS TO POTABLE WATER SUPPLIES. VARIOUS TYPES ARE DISCUSSED AND PROBLEMS ARE INDICATED.

AVAILABILITY: POLLUTION ENGINEERING, V14 N9

IRIS ACCESSION NUMBER: EW008416

PUBLICATION DATE: SEP 82

TITLE: MOTIONLESS MIXING - THE INLINE TREATMENT METHOD.

PERSONAL AUTHOR: JOHNSON, MICHAEL W.

DESCRIPTOR: *COSTS; *EQUIPMENT; *INSTRUMENTATION; *MAINTENANCE; *MOTIONLESS MIXERS; *MIXERS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44-45P.

ABSTRACT: DESCRIBED ARE SPECIAL NON-MOTORIZED TYPES OF MIXERS FOR THE TREATMENT OF WASTEWATER. WHEN USED IN CONJUNCTION WITH CONTROL INSTRUMENTATION, THEY PROVIDE PREDICTABLE AND ACCEPTABLE QUALITY CONTROL WITH A MINIMUM OF

MAINTENANCE.

AVAILABILITY: POLLUTION ENGINEERING, V14 N9

IRIS ACCESSION NUMBER: EW008417

PUBLICATION DATE: SEP 82

TITLE: MANAGING AEROBIC DIGESTER SOLIDS.

PERSONAL AUTHOR: GRASSO, DOMENIC

DESCRIPTOR: *AEROBIC DIGESTERS; *DIGESTERS; *EFFICIENCY; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50-51P.

ABSTRACT: DESCRIBED IS THE OPERATION OF AEROBIC DIGESTERS. TECHNIQUES FOR DETERMINING EFFECTIVE OPERATION OF THE DIGESTERS ARE GIVEN.

AVAILABILITY: POLLUTION ENGINEERING, V14 N9

IRIS ACCESSION NUMBER: EW008418

PUBLICATION DATE: OCT 82

TITLE: A REVIEW OF DANGEROUS GASES IN SANITARY SEWERS.
PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *ACCIDENT PREVENTION; *DETECTION; *GASES; *MANHOLES; *SAFETY; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 34-36P.

ABSTRACT: DISCUSSED ARE THE ORIGIN OF DANGEROUS GASES IN SANITARY SEWERS, PROPERTIES OF GASES, AND TECHNIQUES FOR DETECTING GASES.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008419

PUBLICATION DATE: OCT 82

TITLE: WATER PLANT EXPANSION SUCCESSFULLY COMBINES THE OLD AND THE NEW.

PERSONAL AUTHOR: BOLLER, PHILLIP R.

DESCRIPTOR: *ARCHITECTURE; *CONSTRUCTION; *DESIGN; *FACILITIES; *PLANNING; *TECHNOLOGY; *WATER TREATMENT

DESCRIPTIVE NOTE: 37-39P.

ABSTRACT: DESCRIBED IS THE FT. WAYNE, INDIANA WATER

TREATMENT PLANT WHICH MAKES USE OF NEW TECHNOLOGY WHILE RETAINING ARCHITECTURAL STYLE OF THE ORIGINAL FACILITIES.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008420

PUBLICATION DATE: OCT 82

TITLE: WATER SYSTEM REHABILITATION WAS A TIMELY INVESTMENT.

PERSONAL AUTHOR: EAKINS, WAYNE

DESCRIPTOR: *FIRES; *FIRE PREVENTION; *MAINTENANCE; *MASSACHUSETTS; *PIPES; *WATER SYSTEMS; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER MAINS; *WATER PIPES

DESCRIPTIVE NOTE: 44-47P.

ABSTRACT: A CONFLAGRATION THAT STRUCK LYNN, MASSACHUSETTS WOULD HAVE BEEN MORE SERIOUS IF AN IMPROVEMENT PLAN, WHICH INCLUDED CLEANING AND LINING OF TUBERCULATED PIPE, HAD NOT BEEN DONE.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008421

PUBLICATION DATE: OCT 82
TITLE: LINING SAVES INVERTED SIPHON.

PERSONAL AUTHOR: DONOVAN, J. PATRICK

DESCRIPTOR: *INFILTRATION; *INSITUFORM; *LOUISIANA; *MAINTENANCE; *PIPES; *SEWER LININGS; *SEWER PIPES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-47P.

ABSTRACT: USE OF THE INSITUFORM SEWER LINING PROCESS AVOIDED A NEED TO REPLACE A DETERIORATED INVERTED SIPHON BENEATH A BAYOU.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008422

PUBLICATION DATE: OCT 82

TITLE: MEASURING EFFECTIVENESS OF INFILTRATION/INFLOW REMOVAL.

PERSONAL AUTHOR: NELSON, RICHARD E.; BODNER, RICHARD L.

DESCRIPTOR: *CASE HISTORIES; *INFILTRATION; *INFLOW; *MAINTENANCE; *MONITORING; *PIPES; *REHABILITATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 50-52P.
ABSTRACT: TWO CASE HISTORIES DEMONSTRATE THAT REHABILITATION MEASURES, FOR INFILTRATION/INFLOW IN WASTEWATER COLLECTION SEWERS CAN BE COST EFFECTIVE.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008423

PUBLICATION DATE: OCT 82

TITLE: THE DIVERSION BOX: A PROVEN TECHNOLOGY FOR POLLUTION ABATEMENT.

PERSONAL AUTHOR: NEWNHAM, DONALD F.; AND OTHERS

DESCRIPTOR: *DIVERSION BOXES; *POLLUTION ABATEMENT; *RETENTION FACILITIES; *STORMWATER; *SURFACE RUNOFF; *TECHNOLOGY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 54-55P.

ABSTRACT: RETENTION PONDS ARE PROVEN TOOLS FOR POLLUTION ABATEMENT OF INITIAL RUNOFF.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008424
PUBLICATION DATE: OCT 82

TITLE: PLANT UPGRADING FEATURES PHOSPHORUS REMOVAL.

PERSONAL AUTHOR: COSCICKI, EDWARD; MERRIAM, RICHARD W.

DESCRIPTOR: *DESIGN; *FACILITIES; *MARYLAND; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *PHOSTRIP; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55-56P.

ABSTRACT: WASTEWATER TREATMENT PLANT IMPROVEMENTS THAT EXPANDED CAPACITY AND PROVIDED TERTIARY TREATMENT, INCLUDING PHOSPHORUS REMOVAL, ARE DESCRIBED.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008425

PUBLICATION DATE: OCT 82

TITLE: "YOU NEVER MISS THE WATER TILL THE WELL RUNS DRY".

DESCRIPTOR: *NEW YORK; *PLANNING; *PIPES; *PROJECT DESCRIPTIONS; *WATER DISTRIBUTION; *WATER PIPES; *WATER SUPPLY

DESCRIPTIVE NOTE: 60-61,65P.
ABSTRACT: NEW YORK CITY'S AGED WATER TUNNELS HAVE NEVER BEEN INSPECTED, ARE 50 YEARS OLD, AND HAVE NO BACK-UP. A PROJECT TO PROVIDE A BACK UP IS UNDER CONSTRUCTION, BUT THE FIRST PART IS NOT SCHEDULED TO BE OPERATIONAL UNTIL 1990 AND THE FULL PROJECT MAY NOT BE COMPLETED UNTIL 2039.

AVAILABILITY: PUBLIC WORKS, V113 N10

IRIS ACCESSION NUMBER: EW008426

PUBLICATION DATE: MAR 82

TITLE: A DEVICE FOR MEASURING OIL SLICK THICKNESS.

PERSONAL AUTHOR: BELORE, R. C.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUMENTATION; *MEASUREMENT; *OIL; *OIL SLICKS; *RESEARCH REPORTS; *TECHNOLOGY; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 44-47P.

ABSTRACT: AS PART OF AN OFFSHORE OIL SPILL DISPERSANT EXPERIMENT HELD OFF NEWFOUNDLAND IN 1981, A SLICK MEASURING SYSTEM WAS DEVELOPED AND SUCCESSFULLY USED. THIS ARTICLE DESCRIBES THE DEVICE DEVELOPED.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V7 N2

IRIS ACCESSION NUMBER: EW008427

PUBLICATION DATE: MAR 82

TITLE: THE HAZARDOUS MATERIAL SPILL PROGRAM OF THE ENVIRONMENTAL EMERGENCY BRANCH.

PERSONAL AUTHOR: FINCAS, MERVIN F.; THORNTON, DAVID E.

DESCRIPTOR: *CANADA; *CHEMICAL SUBSTANCES; *COUNTER MEASURES; *ENVIRONMENT; *MONITORING; *POLLUTANTS; *POLLUTION CONTROL; *PROGRAM DESCRIPTIONS; *RESPONSE MANUALS; *SPILLS; *WATER QUALITY

DESCRIPTIVE NOTE: 48-57P.

ABSTRACT: THIS ARTICLE SUMMARIZES CURRENT ACTIVITIES OF THE ENVIRONMENTAL EMERGENCY BRANCH OF THE CANADIAN ENVIRONMENTAL PROTECTION SERVICE. INCLUDED ARE DISCUSSIONS OF NATIONAL SPILL DATA BASES, PRIORITY LIST OF SPILLED CHEMICALS, DEVELOPMENT OF SPILL RESPONSE MANUALS, MONITORING, AND COUNTERMEASURES.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V7 N2

IRIS ACCESSION NUMBER: EW008428
PUBLICATION DATE: OCT 82

TITLE: COMPUTER-BASED LEARNING: THE KEY 'TECHNOLOGICAL MULTIPLIER' FOR TECHNOLOGY TRANSFER.

PERSONAL AUTHOR: REYNOLDS, ANGUS

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *COMPUTERS; *COMPUTER ASSISTED INSTRUCTION; *COST-EFFECTIVENESS; *TECHNOLOGY; *TRAINING

DESCRIPTIVE NOTE: 64-67P.

ABSTRACT: COMPUTER-BASED LEARNING IS A POWERFUL TOOL FOR TECHNOLOGY TRANSFER IN NEWLY INDUSTRIALIZED COUNTRIES. EXAMPLES OF GROUPS USING COMPUTER ASSISTED INSTRUCTION INCLUDING AIR LINES, PETROLEUM COMPANIES, UNIVERSITIES, MANUFACTURING GROUPS, AND GOVERNMENT ARE DISCUSSED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N10

IRIS ACCESSION NUMBER: EW008429

PUBLICATION DATE: OCT 82

TITLE: THE PROBLEM OF TRANSFER CALLS FOR PARTNERSHIP.

PERSONAL AUTHOR: GEORGENSON, DAVID L.

DESCRIPTOR: *COST-EFFECTIVENESS; *LEARNING; *MANAGEMENT; *OBJECTIVES; *PERFORMANCE EVALUATION; *PROBLEM SOLVING; *SKILL DEVELOPMENT; *TRAINERS; *TRAINING; *TRANSFER OF LEARNING

DESCRIPTIVE NOTE: 75-78P.

ABSTRACT: TRAINERS AND MANAGERS OF TRAINEES SHOULD FORM A PARTNERSHIP TO ENSURE PAYBACK ON INVESTMENT IN EMPLOYEE DEVELOPMENT. TRAINERS CAN ENHANCE THE DEGREE TO WHICH SKILLS ARE TRANSFERRED BY WORKING WITH LINE MANAGERS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N10

IRIS ACCESSION NUMBER: EW008430

PUBLICATION DATE: OCT 82

TITLE: PLANNING FOR AN INDIRECT TRAINING STYLE.

PERSONAL AUTHOR: FELDMAN, MICHAEL

DESCRIPTOR: EDUCATION; *INDIRECT TRAINING; *INSTRUCTION; *LEARNING; *LEARNING STYLES; *TRAINING

DESCRIPTIVE NOTE: 79-81P.

ABSTRACT: AN INDIRECT TRAINING STYLE PROMOTES ACTIVE TRAINEE INVOLVEMENT IN A NON-FORMAL ENVIRONMENT.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N10

IRIS ACCESSION NUMBER: EW008431

PUBLICATION DATE: SUM 82

TITLE: FLEXIBLE PIPE BUCKLING ANALYSIS.

PERSONAL AUTHOR: NESBEITT, WILLIAM P.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BUCKLING PIPES; *CALCULATOR APPLICATIONS; *CALCULATOR PROGRAMS; *FLEXIBLE PIPES; *PIPES; *PROGRAMMABLE CALCULATORS

DESCRIPTIVE NOTE: 8P.

ABSTRACT: FLEXIBLE PIPE BUCKLING ANALYSIS CAN BE QUICKLY AND CONVENIENTLY ACCOMPLISHED USING A PROGRAMMABLE CALCULATOR. THE PROGRAM IN THIS ARTICLE WAS DEVELOPED FOR USE ON THE TEXAS INSTRUMENTS TI58 OR TI59.

AVAILABILITY: UNI-BELL PVC PIPE NEWS, V5 N2

IRIS ACCESSION NUMBER: EW008432

PUBLICATION DATE: OCT 82

TITLE: COMPUTER ASSISTED ANALYSIS TO IMPROVE WATER SYSTEM OPERATION.

PERSONAL AUTHOR: MARTIN, D. COLLINS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COMPUTER APPLICATIONS; *DESIGN; *EFFICIENCY; *MODELS; *PLANNING; *SIMULATIONS; *WATER SYSTEMS; *WATER DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 8-9P.

ABSTRACT: COMPUTER-ASSISTED ANALYSIS CAN HELP TO IMPROVE OPERATIONS OF WATER SYSTEMS. COMPUTER SIMULATIONS ALLOW CONSIDERATION OF VARIOUS ALTERNATIVES ON PAPER, RATHER THAN BY TRIAL AND ERROR IN THE FIELD. THE MOST COMMON USE HAS BEEN TO SERVE NEW DEMAND, ALTHOUGH THE TECHNIQUES CAN ALSO BE USED TO DETERMINE MORE EFFICIENT OPERATING PROCEDURES.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008433

PUBLICATION DATE: OCT 82

TITLE: SMALL UTILITY ACTS BIG, GETS RESULTS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *ADMINISTRATION; *CASE STUDIES; *CONTRACTING; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *PURCHASING;

*WATER TREATMENT

DESCRIPTIVE NOTE: 20, 45P.

ABSTRACT: DESCRIBED IS THE WATER UTILITY OF VALPARAISO, INDIANA, MANAGEMENT ORGANIZATION, AND MANAGEMENT ACTIVITIES.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008434

PUBLICATION DATE: OCT 82

TITLE: AQUATIC INVADERS.

PERSONAL AUTHOR: GERARDI, MICHAEL H.; GRIMM, JAMES K.

DESCRIPTOR: *AQUATIC ANIMALS; *BIOLOGY; *INVERTEBRATES; *MICROBIOLOGY; *PESTICIDES; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 22-23P.

ABSTRACT: DESCRIBED ARE AQUATIC ANIMALS THAT CAN SURVIVE IN WATER DISTRIBUTION SYSTEMS. THE ARTICLE ALSO INCLUDES INFORMATION ON HOW TO IDENTIFY THEM AND TO REMOVE THEM.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008435

PUBLICATION DATE: OCT 82

TITLE: MUCH MORE TO RATES THAN TRADITION.

PERSONAL AUTHOR: WOODCOCK, CHRISTOPHER

DESCRIPTOR: *ADMINISTRATION; *CONSERVATION; *COSTS; *ECONOMICS; *MANAGEMENT; *RATES; *WATER RATES; *WATER SUPPLY

DESCRIPTIVE NOTE: 24-25P.

ABSTRACT: DISCUSSED ARE SOME OF THE PRINCIPLES AND PRACTICES THAT ARE CONSIDERED IN ESTABLISHING WATER RATES. SPECIFIC OPERATING CONDITIONS, ECONOMIC CLIMATE, AND LEGAL CONSTRAINTS SHOULD BE CONSIDERED ALONG WITH TRADITIONAL COST-OF-SERVICE AND RATE DESIGN PRINCIPLES.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008436

PUBLICATION DATE: OCT 82

TITLE: ATTACKING ODORS WITH H2O2.

PERSONAL AUTHOR: BURCH, JOHN A.; GAUME, A. NORMAN

DESCRIPTOR: *CASE STUDIES; *DESIGN; EQUIPMENT; *HYDROGEN PEROXIDE; MANAGEMENT; *ODORS; *OPERATIONS (WASTEWATER); *PLANNING; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26-28P.

ABSTRACT: HYDROGEN PEROXIDE IS AN IMPORTANT OPTION FOR CONTROLLING WASTEWATER COLLECTION SYSTEM ODORS. DESCRIBED ARE CHARACTERISTICS OF HYDROGEN PEROXIDE AND WAYS IT CAN BE USED IN WASTEWATER TREATMENT SYSTEMS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008437

PUBLICATION DATE: OCT 82

TITLE: KEEPING CLEAN WATER CLEAN.

PERSONAL AUTHOR: STINSON, KARL B.

DESCRIPTOR: *DRINKING WATER; *DESIGN; *CONSTRUCTION; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WATER); *PUBLIC HEALTH; *RESERVOIRS; *TANKS; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: KEEPING WATER IN WATER MAINS CLEAN IS A CONTINUING PROBLEM. DESIGN, CONSTRUCTION, AND OPERATIONAL PRACTICES CAN HELP KEEP WATER PURE. EXAMPLES OF PRACTICES THAT CAN BE USED ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008438

PUBLICATION DATE: OCT 82

TITLE: VALVE AND HYDRANT MAINTENANCE.

PERSONAL AUTHOR: KURANZ, JOSEPH H.; BARRETT, BRIAN S.

DESCRIPTOR: *HYDRANTS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); *VALVES; *WATER DISTRIBUTION; *WATER UTILITIES; *WATER SUPPLY

DESCRIPTIVE NOTE: 37-38P.

ABSTRACT: REGULAR RESPONSIBLE MAINTENANCE IS A MUST FOR THE VALVES AND HYDRANTS IN ANY WATER DISTRIBUTION SYSTEM. A NUMBER OF SUGGESTED MAINTENANCE PRACTICES AND PROCEDURES ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N11

IRIS ACCESSION NUMBER: EW008439

PUBLICATION DATE: APR 82

TITLE: CAPILLARY SUCTION TIME. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); CAPILLARY SUCTION TIME TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 13 PAGES; INSTRUCTOR'S MANUAL 7 PAGES.

ABSTRACT: CAPILLARY SUCTION TIME IS TIME REQUIRED FOR THE LIQUID PHASE OF A TREATED SLUDGE TO TRAVEL THROUGH 1 CM OF MEDIA (BLOTTER OR FILTER PAPER). DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) RUN THE CAPILLARY SUCTION TIME TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; (3) ORGANIZE DATA TO MAKE REQUIRED INTERPRETATIONS AS TO THE GENERAL QUALITY OF THE SLUDGE UTILIZED IN THE TEST; AND (4) OBTAIN RELIABLE, CONSISTANT RESULTS FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES TO DETERMINE CAPILLARY SUCTION TIME, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OH 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008440

PUBLICATION DATE: AUG 81

TITLE: CENTRIFUGE. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); CENTRIFUGE TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 14 PAGES; INSTRUCTOR'S MANUAL 13 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN A CENTRIFUGE TEST; (2) ACCURATELY READ RESULTS OBTAINED IN TEST TUBES; AND (3) OBTAIN CONSISTENT RESULTS FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF THE INSTRUCTIONAL GOAL, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PRE-REQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, SOURCES OF CENTRIFUGES AND CENTRIFUGE TUBES, LABORATORY PROCEDURES USED TO ESTIMATE THE SUSPENDED SOLIDS CONCENTRATION IN SAMPLES TAKEN FROM ANY PART OF A TREATMENT PLANT, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008441

PUBLICATION DATE: AUG 81

TITLE: DEPTH OF BLANKET. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; LABORATORY EQUIPMENT; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); SLUDGE BLANKET FINDERS

DESCRIPTIVE NOTE: STUDENT WORKBOOK 21 PAGES; INSTRUCTOR'S MANUAL 13 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: THE DETERMINATION OF THE THICKNESS OF A SLUDGE BLANKET IN PRIMARY AND SECONDARY CLARIFIERS AND IN GRAVITY THICKNESS IS IMPORTANT IN MAKING OPERATIONAL CONTROL DECISIONS. KNOWING THE THICKNESS AND CONCENTRATION WILL ALLOW THE OPERATOR TO DETERMINE SLUDGE VOLUME AND DETENTION TIME. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: SUCCESSFULLY MEASURE THE DEPTH OF THE SLUDGE BLANKET IN A CLARIFIER OR GRAVITY THICKENER AND OBTAIN RELIABLE, CONSISTANT RESULTS USING THE PROCEDURES OUTLINED. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, SOURCES OF MATERIALS (ELECTRONIC BLANKET FINDERS, SIGHT GLASSES, AND

CORE SAMPLES), LABORATORY PROCEDURES USING SIGHT GLASS, ELECTRONIC, AND CORE SAMPLER METHODS, INSTRUCTIONS FOR CONSTRUCTING BLANKET FINDERS, AND STUDENT WORKSHEET. NO SPECIAL PREREQUISITE SKILLS ARE NEEDED BEFORE STARTING THIS MODULE.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008442

PUBLICATION DATE: MAR 82

TITLE: FILTER LEAF. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); FILTER LEAF TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 17 PAGES; INSTRUCTOR'S MANUAL 9 PAGES.

ABSTRACT: IN THE OPERATION OF VACUUM FILTERS AND BELT FILTERS, IT IS DESIRABLE TO EVALUATE THE PERFORMANCE OF DIFFERENT TYPES OF FILTER MEDIA AND CONDITIONING PROCESSES. THE FILTER THAT IS USED TO EVALUATE THESE ITEMS ARE DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE FILTER LEAF TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; (3) ORGANIZE DATA TO PERFORM THE REQUIRED CALCULATIONS FOR THE TEST; (4) MAKE GENERAL INTERPRETATIONS AS TO THE QUALITY OF THE SLUDGE USED IN THE TEST AND OF THE MEDIA USED ON THE FILTER; AND (5) OBTAIN RELIABLE AND CONSISTANT RESULTS. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, OVERHEAD TRANSPARENCY MASTERS OF FILTER LEAF APPARATUS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008443

PUBLICATION DATE: APR 82

TITLE: JAR TEST. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANAUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *CHEMICAL ANALYSIS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); JAR TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 31 PAGES; INSTRUCTOR'S MANUAL 29 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE ALONG WITH A VIDEO CASSETTE.

ABSTRACT: THE JAR TEST IS USED TO DETERMINE THE PROPER CHEMICAL DOSAGE REQUIRED FOR GOOD COAGULATION AND FLOCCULATION OF WATER. THE TEST IS COMMONLY USED IN POTABLE WATER, SECONDARY EFFLUENT PRIOR TO ADVANCED WASTEWATER TREATMENT, SECONDARY CLARIFIER INFLUENT, AND SLUDGE CONDITIONING PRACTICE. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT PERSONNEL WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE JAR TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; AND (3) DETERMINE PROPER CHEMICAL DOSAGES AND MIXING TIMES FOR PROPER COAGULATION AND FLOCCULATION. THE TEACHER'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTITIVIES AND INSTRUCTIONAL MATERIALS, INSTRUCTIONAL STRATEGIES ON PREPARING STOCK SOLUTIONS, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT MANUAL CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE STARTING THE MODULE, SOURCES OF JAR TEST UNITS, LABORATORY PRECEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008444

PUBLICATION DATE: NOV 81

TITLE: MASS BALANCE. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; SOLID WASTES; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); SOLID MASS BALANCE

DESCRIPTIVE NOTE: STUDENT WORKBOOK 20 PAGES; INSTRUCTOR'S MANUAL 24 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: THIS MODULE DESCRIBES THE PROCESS USED TO DETERMINE SOLIDS MASS AND LOCATION THROUGHOUT A WASTE WATER TREATMENT PLANT, EXPLAINS HOW THESE VALUES ARE USED TO DETERMINE THE SOLIDS MASS BALANCE AROUND SINGLE TREATMENT UNITS AND THE ENTIRE SYSTEM, AND PRESENTS CALCULATIONS OF SOLIDS IN POUNDS AND SLUDGE UNITS. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008445

PUBLICATION DATE: OCT 81

TITLE: OXYGEN PROFILE. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; MICROBIOLOGY; POST SECONDARY EDUCATION; SAMPLING; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); OXYGEN PROFILE TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 14 PAGES; INSTRUCTOR'S MANUAL 15 PAGES.

ABSTRACT: THE OXYGEN PROFILE PROCEDURE IS A MEANS OF MEASURING THE OXYGEN CONCENTRATION AT VARIOUS LOCATIONS IN A BASIN. BY DIVIDING THE SURFACE OF A BASIN INTO SECTIONS AND THEN ESTABLISHING SAMPLE POINTS ON THE SURFACE AT MID-DEPTH, AND NEAR THE BOTTOM, A WASTE WATER TREATMENT PLANT OPERATOR CAN MEASURE AND PLOT DISSOLVED OXYGEN DATA WHICH CAN BE PLOTTED TO VISUALLY SHOW OXYGEN CONCENTRATIONS THROUGHOUT THE BASIN. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE OXYGEN PROFILE TEST; (2) RECORD DATA; (3) GRAPH RESULTS; (4) INTERPRET INFORMATION IN TERMS OF RECOGNIZING AREAS OF OXYGEN DEFICIENCY IN THE SYSTEM BEING TESTED; AND (5) OBTAIN RELIABLE, CONSISTANT RESULTS. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS,

AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008446

PUBLICATION DATE: SEP 81

TITLE: OXYGEN UPTAKE. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; MICROBIOLOGY; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; WATER QUALITY; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); OXYGEN UPTAKE TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 29 PAGES; INSTRUCTOR'S MANUAL 29 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: BIOLOGICAL WASTE TREATMENT IN THE ACTIVATED SLUDGE PROCESS IS BASED ON THE ABILITY OF MICROORGANISMS TO USE DISSOLVED OXYGEN IN BREAKING DOWN SOLUBLE ORGANIC SUBSTANCES. THE OXYGEN UPTAKE TEST IS A MEANS OF MEASURING THE RESPIRATION RATE OF MICROORGANISMS IN THIS PROCESS. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE OXYGEN UPTAKE TEST; (2) GRAPH ITS RESULTS; (3) PROPERLY PERFORM CALCULATIONS FOR SLOPE, OXYGEN UPTAKE RATES, AND (4) OBTAIN RELIABLE DATA FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, SOURCES OF DISSOLVED OXYGEN METERS, LABORATORY PROCEDURES (OXYGEN UPTAKE TEST, STABILIZATION TEST, SUSPENDED SOLIDS, AND VOLATILE SUSPENDED SOLIDS), AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008447

PUBLICATION DATE: JUL 82

TITLE: RISE TIME. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); RISE TIME TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 14 PAGES; INSTRUCTOR'S MANUAL 7 PAGES.

ABSTRACT: THE RISE TIME TEST (ALONG WITH THE SETTLEOMETER PROCEDURE) IS USED TO MONITOR SLUDGE BEHAVIOR IN THE SECONDARY CLARIFIER OF AN ACTIVATED SLUDGE SYSTEM. THE TEST MONITORS THE EFFECT OF THE NITRIFICATION/DENITRIFICATION PROCESS AND AIDS THE OPERATOR IN DETERMINING OPTIMUM DEGREE OF OXIDATION IN THE AERATION BASIN. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE (TO BE USED IN CONJUNCTION WITH THE SETTLEOMETER MODULE) PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) RUN AND EVALUATE THE TEST FOR SLUDGE RISE TIME; (2) RECORD DATA; AND (3) DESCRIBE HOW NITRIFICATION/DENITRIFICATION AFFECTS SLUDGE RISE TIME. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008448

PUBLICATION DATE: MAR 82

TITLE: PERCENT CO2. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.

DESCRIPTOR: *CHEMICAL ANALYSIS; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); DIGESTER GAS ANALYSIS; *CARBON DIOXIDE

DESCRIPTIVE NOTE: STUDENT WORKBOOK 15 PAGES; INSTRUCTOR'S MANUAL 6 PAGES.

ABSTRACT: DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE ON DIGESTOR GAS ANALYSIS PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE CARBON DIOXIDE ANALYSIS TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; (3) ORGANIZE DATA TO PERFORM REQUIRED CALCULATIONS FOR THE TEST; (4) MAKE GENERAL INTERPRETATIONS AS TO THE QUALITY OF DIGESTOR GAS UTILIZED IN THE TEST; AND (5) OBTAIN RELIABLE, CONSISTANT RESULTS FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, SOURCES OF FYRITE CARBON DIOXIDE ANALYZERS, LABORATORY PROCEDURES (MONITORING CHANGES IN DIGESTOR ACTIVITY BY DETERMINING CARBON DIOXIDE WITH A CARBON DIOXIDE ANALYZER), AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008449

PUBLICATION DATE: NOV 81

TITLE: SAMPLING. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SAMPLING; TEACHING GUIDES; *TRAINING METHODS; WATER QUALITY; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); OPERATIONS (WATER)

DESCRIPTIVE NOTE: STUDENT WORKBOOK 17 PAGES; INSTRUCTOR'S MANUAL 20 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: A BRIEF OVERVIEW OF THE BASIC CONCEPTS AND PHILOSOPHIES FOR SAMPLING WATER AND WASTE WATER SYSTEMS IS PRESENTED IN THIS MODULE. THE MODULE IS NOT INTENDED TO SPECIFY SAMPLING PROCEDURES, FREQUENCIES, OR LOCATIONS FOR SPECIFIC TREATMENT FACILITIES, BUT RATHER TO OUTLINE THOSE GENERAL PROCEDURES WHICH SHOULD BE FOLLOWED WHEN SAMPLING UNDER MOST ALL CIRCUMSTANCES. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, LIST OF REFERENCES, WORKSHEET, AND PROCEDURES DEMONSTRATING HOW TO SELECT A SAMPLE SITE AND TO COLLECT AND PRESERVE A SAMPLE FOR THE MORE COMMON OPERATIONAL CONTROL TESTS. NO SPECIAL PREREQUISITE SKILLS ARE NEEDED BEFORE THE

MODULE IS STARTED.
AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008450

PUBLICATION DATE: AUG 81

TITLE: SETTLEOMETER. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); SETTLEOMETER TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 20 PAGES; INSTRUCTOR'S MANUAL 29 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: THE SETTLEOMETER TEST IS USED TO INDICATE THE SOLIDS-LIQUID SEPARATION (DOWNTIME) CAPABILITY OF SLUDGE, MOST COMMONLY ON ACTIVATED SLUDGE ENTERING THE SECONDARY CLARIFIER AND AEROBIC DIGESTERS. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) RUN THE SETTLEOMETER TEST TO DETERMINE SOLIDS SETTLEABILITY; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; AND (3) OBTAIN CONSISTANT AND RELIABLE DATA FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL MATERIALS, NARRATIVE OF THE INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, SOURCES OF SETTLEOMETERS, LABORATORY PROCEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008451

PUBLICATION DATE: APR 82

TITLE: SPECIFIC RESISTANCE. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: WOOLEY, JOHN F.
DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; *SLUDGE; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); *SPECIFIC RESISTANCE TEST

DESCRIPTIVE NOTE: STUDENT WORKBOOK 18 PAGES; INSTRUCTOR'S MANUAL 14 PAGES.

ABSTRACT: A COMMONLY USED TEST FOR DETERMINING FILTERABILITY OF CONDITIONED SLUDGE IS THE SPECIFIC RESISTANCE (BUCHNER FUNNEL) TEST. THE SLUDGE IS FILTERED THROUGH FILTER PAPER USING A BUCHNER FUNNEL AND TIME TO OBTAIN A GIVEN VOLUME OF FILTRATE (OR FOR CAKE RESIDUE TO BEGIN TO CRACK) IS MEASURED. THE SHORTER THE TIME, THE BETTER THE FILTERABILITY OF THE SLUDGE. DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) SUCCESSFULLY RUN THE SPECIFIC RESISTANCE TEST; (2) ACCURATELY RECORD DATA AND OBSERVATIONS; (3) ORGANIZE DATA TO PERFORM REQUIRED CALCULATIONS; (4) MAKE GENERAL INTERPRETATIONS AS TO THE QUALITY OF SLUDGE UTILIZED IN THE TEST BASED ON VALUES OBTAINED; AND (5) OBTAIN RELIABLE, CONSISTANT RESULTS FROM THE TEST PROCEDURE. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LABORATORY PROCEDURES, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008452

PUBLICATION DATE: AUG 81

TITLE: TURBIDITY. OPERATIONAL CONTROL TESTS FOR WASTEWATER TREATMENT FACILITIES. INSTRUCTOR'S MANUAL AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION SLUDGE; SOLID WASTES; TEACHING GUIDES; *TRAINING METHODS; *WASTEWATER; *WATER TREATMENT; *OPERATIONS (WASTEWATER); TURBIDITY

DESCRIPTIVE NOTE: STUDENT WORKBOOK 16 PAGES; INSTRUCTOR'S MANUAL 15 PAGES. SLIDE/TAPE PROGRAM WHICH ACCOMPANIES THIS MODULE IS ALSO AVAILABLE FROM LINN-BENTON COMMUNITY COLLEGE.

ABSTRACT: DESIGNED FOR INDIVIDUALS WHO HAVE COMPLETED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) LEVEL 1 LABORATORY TRAINING SKILLS, THIS MODULE PROVIDES

WASTE WATER TREATMENT PLANT OPERATORS WITH THE BASIC SKILLS AND INFORMATION NEEDED TO: (1) STANDARDIZE A NEPHELOMETRIC TURBIDIMETER; (2) DETERMINE THE TURBIDITY OF A SAMPLE; AND (3) CALCULATE TURBIDITY FOR TESTS REQUIRING SAMPLE DILUTION. THE INSTRUCTOR'S MANUAL CONTAINS A STATEMENT OF INSTRUCTIONAL GOALS, LISTS OF INSTRUCTOR/STUDENT ACTIVITIES AND INSTRUCTIONAL MATERIALS, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE MODULE, OVERHEAD TRANSPARENCY MASTERS, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PREREQUISITE SKILLS NEEDED BEFORE THE MODULE IS STARTED, LIST OF ENVIRONMENTAL PROTECTION AGENCY (EPA) APPROVED NEPHELOMETRIC TURBIDIMETERS, SAMPLE PROBLEM, LABORATORY PROCEDURES FOR THE NEPHELOMETRIC METHOD OF MEASURING TURBIDITY, AND WORKSHEET.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OREGON 97321 ($1. STUDENT WORKBOOK, $2. INSTRUCTOR'S MANUAL); EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OHIO 43212 ($1. PER DOCUMENT PLUS $0.03 PER PAGE)

IRIS ACCESSION NUMBER: EW008453

PUBLICATION DATE: NOV 82

TITLE: ACIDITY CONTROL IN THE NORTH BRANCH POTOMAC.

DESCRIPTOR: *ACIDITY; *ACID MINE DRAINAGE; *CASE STUDIES; DAMS; MANAGEMENT; OPERATIONS (WASTEWATER); *POLLUTION CONTROL; POTOMAC RIVER; *RESEARCH REPORTS; RIVERS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1441-1446P.

ABSTRACT: THIS ARTICLE EXAMINES THE PROBLEM OF ACID MINE DRAINAGE AND ITS AFFECT ON WATER QUALITY IN THE NORTH BRANCH OF THE POTOMAC RIVER. ATTENTION IS FOCUSED ON FACTORS THAT MITIGATE THE ACIDITY. THIS PAPER IDENTIFIES AND QUANTIFIES THE SOURCE OF BUFFERING CAPACITY OF A SECONDARY TREATMENT PLANT AND DEVELOPS AN OPERATING RULE FOR A DAM TO MANAGE WATER QUALITY. FINALLY, IT DEFINES A NEW MEASURE OF ACIDITY THAT IS USEFUL FOR OPERATIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008454

PUBLICATION DATE: NOV 82

TITLE: ANAEROBIC TREATMENT OF THERMAL CONDITIONING LIQUORS.

PERSONAL AUTHOR: CRAWFORD, GEORGE V., AND OTHERS

DESCRIPTOR: *ANAEROBIC TREATMENT; *EQUIPMENT; HEAT TREATMENT; *PERFORMANCE EVALUATION; PRETREATMENT; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *SLUDGE; SLUDGE TREATMENT; *THERMAL CONDITIONING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1458-1464P.

ABSTRACT: MANY WASTEWATER TREATMENT FACILITIES HAVE INSTALLED THERMAL CONDITIONING SYSTEMS TO PROCESS A MIXTURE OF RAW SLUDGE AND WASTE ACTIVATED SLUDGE PRIOR TO DECANTATION AND FURTHER DEWATERING. DURING THE DEWATERING OF THERMALLY CONDITIONED SLUDGE, SIGNIFICANT AMOUNTS OF DECANT LIQUOR AND FILTRATE ARE SEPARATED FROM THE SLUDGE SOLIDS. THIS PAPER DISCUSSES THE USE OF ANAEROBIC PACKED BED REACTORS FOR THE PRETREATMENT OF THERMAL CONDITIONING LIQUID PRIOR TO DISCHARGE INTO THE PLANT INFLUENT, INCLUDING LOADING RATES, PACKING MEDIA SIZE, OPERATING CONTROL PARAMETERS, GAS PRODUCTION, SLUDGE PRODUCTION, AND BOD5 AND COD REMOVAL.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008455

PUBLICATION DATE: NOV 82

TITLE: LOW TEMPERATURE ANAEROBIC BIOFILTRATION IN UPFLOW REACTORS.

PERSONAL AUTHOR: OLESKIEWICZ, JAN A.; KOZIARSKI, SZYMON

DESCRIPTOR: *ANAEROBIC TREATMENT; *BIOFILTERS; *FILTRATION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PILOT PLANTS; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1465-1471P.

ABSTRACT: ANAEROBIC BIOFILTRATION WAS STUDIED IN PILOT SCALE AT AMBIENT ROOM TEMPERATURES (23 DEGREES TO 26 DEGREES C.) DATA REGARDING EFFLUENT QUALITY, GAS PRODUCTION, AND EFFICIENCY ARE GIVEN.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008456

PUBLICATION DATE: NOV 82

TITLE: REMOVAL OF TOXIC METALS FROM POWER-GENERATION WASTE STREAMS BY ADSORPTION AND COPRECIPITATION.

PERSONAL AUTHOR: BENJAMIN, MARK M.; AND OTHERS

DESCRIPTOR: *ADSORPTION; COAL WASTES; *COPRECIPITATION; *METALS; *MODELS; *OPERATIONS (WASTEWATER); *POWER PLANTS; *POWER PRODUCTION; *RESEARCH REPORTS; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1472-1481P.

ABSTRACT: THE ADSORPTION/COPRECIPITATION OF SEVERAL INORGANIC ANIONS AND CATIONS (CD2+, CU2+, SE032-, AS043-, CR042- WAS STUDIED IN WELL-CHARACTERIZED MODEL SYSTEMS AND IN ACTUAL POWER PLANT WASTE. IN GENERAL, THE ADSORPTION/COPRECIPITATION PROCESS WITH AMORPHOUS IRON

OXYHYDROXIDE IS FEASIBLE FOR REMOVING TRACE ELEMENTS. IT IS POSSIBLE TO USE AN ACID METAL-CLEANING WASTE AS THE IRON SOURCE FOR COPRECIPITATION OF TRACE ELEMENTS, AND THE EFFICIENCY CAN BE PREDICTED BY A MODEL FOR COMPETITIVE ADSORPTION AND METAL ION COMPLEXATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008457

PUBLICATION DATE: NOV 82

TITLE: ANAEROBIC TREATMENT OF WASTEWATER: THE GAS-LIQUID-SLUDGE SEPARATOR.

PERSONAL AUTHOR: VAN DER MEER, R. R.; DE VLETTER, R.

DESCRIPTOR: *ANAEROBIC TREATMENT; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; PILOT PLANTS; *RESEARCH REPORTS; *SLUDGE; *SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1482-1492P.

ABSTRACT: IN A NEWLY DEVELOPED SYSTEM FOR ANAEROBIC TREATMENT OF INDUSTRIAL WASTEWATER, AN UPFLOW REACTOR HAS BEEN USED THAT IS PROVIDED WITH AN INTERNAL GAS SEPARATOR SETTLER COMBINATION. IT SEEMED THAT THE FLUID FLOW PATTERN IN THE SETTLER COULD BE DESCRIBED AS PLUG FLOW IN COMBINATION WITH GOOD MIXING AND SOMETIMES DEAD SPACES. EFFICIENCIES OF THE SOLIDS SEPARATION OF 96 TO 99.5% WERE FOUND AT DIFFERENT SUSPENDED SOLIDS CONCENTRATIONS TO A MAXIMUM OF 40 KG/M3 AT THE INLET OF THE SETTLER. THIS RESULTED IN A SOLIDS RETENTION TIME IN THE UPFLOW REACTOR THAT IS SUFFICIENT TO KEEP THE PROCESS STATIONARY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008458

PUBLICATION DATE: 82

TITLE: KINETIC ANALYSIS OF ALTERNATIVE CONFIGURATIONS FOR SINGLE-SLUDGE NITRIFICATION/DENITRIFICATION.

PERSONAL AUTHOR: BATCHELOR, BILL

DESCRIPTOR: *BIOLOGICAL PROCESSES; *DESIGN; *DENITRIFICATION; *KINETICS; *MATHEMATICAL MODELS; MODELING; *NITRIFICATION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1493-1504P.

ABSTRACT: SINGLE-SLUDGE WASTEWATER TREATMENT SYSTEMS FOR BIOLOGICAL NITRIFICATION/DENITRIFICATION OFFER SIGNIFICANT ADVANTAGES OVER MULTIPLE SLUDGE SYSTEMS. HOWEVER, DESIGN AND CONTROL OF SINGLE-SLUDGE SYSTEMS IS DIFFICULT BECAUSE OF INTERACTIONS AMONG THE COMPETING MICROBIOLOGICAL PROCESSES. A COMPUTER SIMULATION MODEL WAS DEVELOPED TO AID IN THE ANALYSIS OF SINGLE-SLUDGE SYSTEMS. IT WAS FOUND THAT UNDER CONDITIONS OF SMALL CYCLE TIME RATIOS, ALL CONFIGURATIONS PERFORMED THE SAME. HENCE, RESULTS OF COMPUTER SIMULATION OF THE INTERMITTENTLY AERATED COMPLETELY MIXED CONFIGURATION CAN BE APPLIED TO OTHER SYSTEMS. FURTHERMORE, A SINGLE PROCEDURE CAN BE USED TO DESIGN ANY CONFIGURATION. SUCH A PROCEDURE IS PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008459

PUBLICATION DATE: NOV 82

TITLE: ALGAL AVAILABILITY OF PHOSPHORUS IN MUNICIPAL WASTEWATER.

PERSONAL AUTHOR: YOUNG, THOMAS C.; AND OTHERS

DESCRIPTOR: *ALGAE; *AQUATIC ENVIRONMENTS; *CASE STUDIES; *MATHEMATICAL MODELS; *MUNICIPAL WASTES; *NUTRIENTS; *PHOSPHORUS; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1505-1516P.

ABSTRACT: SAMPLES COLLECTED FROM SEVERAL POINTS ALONG THE TREATMENT SYSTEM AT FOUR MUNICIPAL WASTEWATER PLANTS WERE BIOASSAYED TO DETERMINE THE AVAILABILITY OF SOLUBLE AND PARTICULATE PHOSPHORUS TO SCENEDESMUS SP. THE RESULTS SHOWED THAT THE SHORTTERM (14 DAYS) AVAILABILITY OF SOLUBLE PHOSPHORUS WAS SIGNIFICANTLY GREATER THAN THAT OF THE PARTICULATE PHOSPHORUS. THE ANALYSIS SHOWED THAT VIRTUALLY ALL OF THE SOLUBLE PHOSPHORUS AND AN AVERAGE OF 63% OF THE PARTICULATE PHOSPHORUS ULTIMATELY COULD BECOME AVAILABLE FOR ALGAL UPTAKE. THE TREATMENT METHODS USED AT THE PLANTS, INCLUDING CHEMICAL PRECIPITATION FOR PHOSPHORUS REMOVAL, HAD NO EFFECT ON THE RELATIVE AVAILABILITY OF THE TWO FRACTIONS; HOWEVER, RATES OF AVAILABILITY SEEMED TO DECREASE THROUGH THE TREATMENT SYSTEMS. BECAUSE OF ITS GREATER AVAILABILITY, THE SOLUBLE PHOSPHORUS FRACTION OF FINAL EFFLUENT TOTAL PHOSPHORUS SHOULD BE REDUCED TO LEVELS AS LOW AS POSSIBLE TO MINIMIZE THE EFFECT OF MUNICIPAL PHOSPHORUS LOADS ON AQUATIC SYSTEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N11

IRIS ACCESSION NUMBER: EW008460

PUBLICATION DATE: NOV 82

TITLE: A WATER PLANT FOR THE 21ST CENTURY.

DESCRIPTOR: *CASE STUDIES; CONSTRUCTION; *DESIGN; EQUIPMENT; *FACILITIES; FINANCING; MANAGEMENT; MUNICIPALITIES; *OPERATIONS (WATER); PLANNING; *WATER

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SUPPLY; *WATER TREATMENT
DESCRIPTIVE NOTE: 23-27P.

ABSTRACT: THIS ARTICLE PRESENTS A DETAILED DESCRIPTION OF THE PLANNING, DESIGN, FINANCING, AND CONSTRUCTION OF THE FAIRFAX COUNTY (VIRGINIA) WATER AUTHORITY'S 50 MGD WATER SUPPLY FACILITY. THE NEW FACILITY IS COMPRISED OF AN INTAKE, INTAKE CONDUITS, A RAW WATER PUMPING STATION, A RAW WATER SUPPLY MAIN, A WATER TREATMENT PLANT, TREATED WATER TRANSMISSION MAINS AND AN INTERCHANGE TRANSMISSION MAIN.

AVAILABILITY: AMERICAN CITY AND COUNTY, V97 N11

IRIS ACCESSION NUMBER: EW008461

PUBLICATION DATE: NOV 82

TITLE: SUBMERSIBLE PUMPS HAVE COME OF AGE.

DESCRIPTOR: COSTS; DESIGN; *EQUIPMENT; *GUIDES; MAINTENANCE; MANUFACTURERS; *PUMPS; *SEWAGE PUMPS; *SOLIDS HANDLING; SPECIFICATIONS; *SUBMERSIBLE PUMPS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: THIS ARTICLE EXAMINES THE APPLICATIONS OF SUBMERSIBLE SOLIDS HANDLING OR SEWAGE PUMPS IN WASTEWATER TREATMENT. TOPICS DISCUSSED INCLUDE HISTORY, COSTS, APPLICATIONS, AND MAINTENANCE. ALSO INCLUDED IS A PUMP DESIGN AND SYSTEM CONTROLS GUIDE, A BUYER'S GUIDE SPECIFICATION CHART, AND A DIRECTORY OF SUBMERSIBLE PUMP MANUFACTURERS.

AVAILABILITY: AMERICAN CITY AND COUNTY, V97 N11

IRIS ACCESSION NUMBER: EW008462

PUBLICATION DATE: MAY 82

TITLE: THE PERFORMANCE OF MECHANICAL OIL SKIMMERS.

PERSONAL AUTHOR: SOLSBERG, L. B.

DESCRIPTOR: *EQUIPMENT; *GUIDES; MECHANICAL OIL SKIMMERS; OIL; *OIL COLLECTION; *OIL SPILLS; *PERFORMANCE EVALUATION; *POLLUTION CONTROL; *SKIMMERS; *TECHNOLOGICAL ADVANCEMENTS; *TECHNOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 69-74P.

ABSTRACT: THIS ARTICLE PRESENTS THE FINDINGS OF AN EXAMINATION OF 'A CATALOGUE OF OIL SKIMMERS' IN WHICH THE VARIOUS OIL COLLECTION PRINCIPLES WERE ASSESSED FOR THEIR APPLICABILITY TO DIFFERENT OIL TYPES. SECTIONS INCLUDE HEAVY OILS, MEDIUM VISCOSITY OILS, LIGHT OILS, AND OTHER SKIMMING CONCEPTS. WHILE THIS REPORT DOES NOT ALLOW THE IMMEDIATE IDENTIFICATION OF INDIVIDUAL HARDWARE NEEDS FOR A PARTICULAR AREA, CERTAIN TRENDS IN PERFORMANCE DATA CAN BE NOTED WHICH

SHOULD MAKE SELECTING OIL SKIMMERS EASIER.
AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V7 N3

IRIS ACCESSION NUMBER: EW008463

PUBLICATION DATE: MAY 82

TITLE: A VERSATILE CONTAINER FOR OIL SPILL CLEANUPS AND OTHER APPLICATIONS.

PERSONAL AUTHOR: ESLING, PETER; FARREN, RAYMOND

DESCRIPTOR: *CONTAINERS; *DESIGN; *EQUIPMENT; OIL; *OIL SPILL CLEANUP; *PERFORMANCE EVALUAION; *POLLUTION CONTROL; *TECHNOLOGICAL ADVANCEMENTS; *TECHNOLOGY; TEST RESULTS; *WATER QUALITY

DESCRIPTIVE NOTE: 75-78P.

ABSTRACT: THIS ARTICLE EXAMINES THE PERFORMANCE AND APPLICATIONS OF A MODULAR CONTAINER SYSTEM IN OIL SPILL CLEANUP. A DESCRIPTION OF THE CONTAINER AND RESULTS OF OIL CONTAINMENT AND TRANSPORT TESTS ARE ALSO INCLUDED.

AVAILABILITY: SPILL TECHNOLGY NEWSLETTER, V7 N3

IRIS ACCESSION NUMBER: EW008464

PUBLICATION DATE: OCT 82

TITLE: BREAKPOINT CHLORINATION - THE CHEMISTRY OF CHLORINE.

PERSONAL AUTHOR: LEIDHOLDT, RALPH

DESCRIPTOR: *CHEMICAL REACTIONS; *CHLORINE; *CHLORINATION; *DISINFECTION; *BREAKPOINT CHLORINATION; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 1, 6-7P.

ABSTRACT: THIS ARTICLE IS PART TWO OF A TWO-PART ARTICLE ON CHLORINE AND CHLORINATION. THIS ARTICLE CONSIDERS BREAKPOINT CHLORINATION AND THE CHEMICAL REACTIONS THAT OCCUR WITH CHLORINE.

AVAILABILITY: OPFLOW V8 N10

IRIS ACCESSION NUMBER: EW008465

PUBLICATION DATE: OCT 82

TITLE: CERTIFICATION CORNER.

DESCRIPTOR: *CERTIFICATION; *EVALUATION; *OPERATIONS (WATER); *OPERATORS (WATER); *TEST QUESTIONS; *WATER TREATMENT

DESCRIPTIVE NOTE: 2P.
ABSTRACT: INCLUDED ARE SEVEN QUESTIONS SELECTED FROM CERTIFICATION EXAMS USED TO TEST WATER TREATMENT OPERATOR'S BASIC KNOWLEDGE OF SYSTEMS.

AVAILABILITY: OPFLOW V8 N10

IRIS ACCESSION NUMBER: EW008466

PUBLICATION DATE: NOV 82

TITLE: TRIPLE PERCEPTIONS OF THE TRAINER: STRATEGIES FOR CHANCE.

PERSONAL AUTHOR: NEWSTROM, JOHN W.; LEIFER, MELISSA M.

DESCRIPTOR: *BEHAVIORAL SCIENCES; *COMMUNICATION SKILLS; *MANAGEMENT; PERCEPTION TESTS; *PSYCHOLOGY; *RESEARCH REPORTS; *TRAINING; *TRAINING METHODS

DESCRIPTIVE NOTE: 90-96P.

ABSTRACT: THIS ARTICLE PRESENTS DATA FROM A SURVEY OF PERCEPTION OF TRAINING FROM THE VIEWPOINT OF THE ORGANIZATION, THE TRAINEE, AND THE TRAINER. THIS TRIPLE ASSESSMENT APPROACH REVEALED A DISTINCT PATTERN OF PERCEPTIONS WHICH WERE CONVERTED INTO BIPOLAR DIMENSIONS AND PLACED ON A TEN-POINT RESPONSE SCALE. THE PERCEPTION PATTERNS AND THE USE OF THE RESPONSE SCALE ARE DESCRIBED IN DETAIL. THE IMPLICATIONS OF THIS STUDY FOR MANAGEMENT, TRAINEES, AND TRAINERS ARE EXPLAINED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N11

IRIS ACCESSION NUMBER: EW008467

PUBLICATION DATE: NOV 82

TITLE: TRAINING SUPERVISORS TO DISCIPLINE EFFECTIVELY.

PERSONAL AUTHOR: HARRISON, EDWARD L.

DESCRIPTOR: *BEHAVIORAL SCIENCES; *COMMUNICATIONS SKILLS; COUNSELING; *DISCIPLINE; *INTERPERSONAL RELATIONS; *MANAGEMENT; SUPERVISION; *SUPERVISORS; *TRAINING

DESCRIPTIVE NOTE: 111-113P.

ABSTRACT: THIS ARTICLE DESCRIBES A BEHAVIORAL APPROACH TO DISCIPLINE THAT EMPHASIZES COUNSELING AND INTERVIEWING SKILLS. THIS TRAINING APPROACH IS AIMED AT FIRST-LINE SUPERVISORS. THE ARTICLE REVIEWS COMMON FAILURES OF SUPERVISORS AND DISCUSSES WAYS TO TEACH SUPERVISORS TO DISCIPLINE EFFECTIVELY AND IMPROVE INTERPERSONAL SKILLS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N11

IRIS ACCESSION NUMBER: EW008468
PUBLICATION DATE: FAL 82

TITLE: RECOVERY AND TREATMENT OF CONTAMINATED GROUND WATER: PART II.

PERSONAL AUTHOR: QUINCE, J. R.; CARDNER, C. L.

DESCRIPTOR: CASE STUDIES; *CONTAMINATION; *GROUNDWATER; *GROUNDWATER RECOVERY; HYDROLOGY; *NATURAL RESOURCES; *PERFORMANCE EVALUATION; PLANNING; *POLLUTION ABATEMENT; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 18-25P.

ABSTRACT: THIS ARTICLE PRESENTS AN OVERVIEW OF TECHNIQUES CURRENTLY APPLIED TO RECOVER AND TREAT CONTAMINATED GROUNDWATER. FOUR CASE HISTORIES INVOLVING CONTAMINATED GROUNDWATER, EACH WITH DIFFERENT PARAMETERS, ARE DESCRIBED IN DETAIL. TOPICS ADDRESSED INCLUDE: SITE MAPPING, CONTAMINANT IDENTIFICATION, RECOVERY METHODS, CONTAMINANT CONCENTRATION REDUCTION, AND MONITORING. THE RESULTS OF THE CASE HISTORIES INDICATE IN SITU RECOVERY AND TREATMENT TO BE MORE EFFECTIVE THAN EXCAVATION AND DISPOSAL.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N4

IRIS ACCESSION NUMBER: EW008469

PUBLICATION DATE: FAL 82

TITLE: CHEMICAL TIME-SERIES SAMPLING.

PERSONAL AUTHOR: KEELY, JOSEPH F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICALS; DATA ANALYSIS; *DATA COLLECTION; *ENGINEERING; *GROUNDWATER; *HYDROLOGY; *MATHEMATICAL APPLICATIONS; MONITORING; *SAMPLING; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 29-38P.

ABSTRACT: THIS ARTICLE DESCRIBES A TECHNIQUE WHICH COLLECTS SUCCESSIVE PUMPED SAMPLES FROM ONE DISCHARGING WELL. THE APPLICATION OF THIS TECHNIQUE IN GROUNDWATER QUALITY ASSESSMENT IS DETAILED THROUGH HYPOTHETICAL EXAMPLES. TOPICS ADDRESSED INCLUDE: MECHANICS OF TIME-SERIES SAMPLING, PATTERNS OF CONTAMINANT ARRIVAL, DISTANCE OF DRAW ESTIMATES, STATISTICAL CONSIDERATIONS, CASING STORAGE EFFECTS, AND GEOHYDRAULIC CONCERNS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N4

IRIS ACCESSION NUMBER: EW008470

PUBLICATION DATE: FAL 82

TITLE: ALTERNATIVES IN DECONTAMINATION FOR HYDROCARBON -

CONTAMINATED AQUIFERS.

PERSONAL AUTHOR: YANIGA, PAUL M.

DESCRIPTOR: *CASE STUDIES; *CONTAMINATION; GASOLINE; *GROUNDWATER; *HYDROCARBONS; *NATURAL RESOURCES; *PERFORMANCE EVALUATION; *POLLUTION ABATEMENT; *WATER SUPPLY; WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 40-49P.

ABSTRACT: THIS ARTICLE PRESENTS A CASE HISTORY OF THE USE OF ALTERNATIVE DECONTAMINATION TECHNIQUES FOR THE RENOVATION OF AQUIFERS CONTAMINATED WITH DISSOLVED GASOLINE HYDROCARBONS. THE APPLICATION OF THE APPLIED GROUNDWATER MANIPULATION, AIR STRIPPING AND BIOSTIMULATION PROGRAM PROVED TO BE A VIABLE ALTERNATIVE THAT IS COST EFFECTIVE.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N4

IRIS ACCESSION NUMBER: EW008471

PUBLICATION DATE: FAL 82

TITLE: RESTORATION OF AN AQUIFER CONTAMINATED BY AN ACCIDENTAL SPILL OF ORGANIC CHEMICALS.

PERSONAL AUTHOR: OHNECK, ROBERT J.; GARDNER, GARY L.

DESCRIPTOR: *AQUIFERS; *CASE STUDIES; CHEMICALS; *CONTAMINATION; *GROUNDWATER; MONITORING; *NATURAL RESOURCES; PNEUMATIC RECOVERY; *POLLUTION ABATEMENT; SITE ASSESSMENT; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: THE PURPOSE OF THIS ARTICLE IS TO PRESENT A CASE HISTORY OF ONE SITUATION RESULTING FROM AN ACCIDENTAL SPILLAGE OF 130,000 GALLONS OF ORGANIC CHEMICALS WHICH ENTERED A SHALLOW UNCONFINED AQUIFER. USING PNEUMATIC RECOVERY AND INJECTION TECHNIQUES, THE CLEANUP CONTRACTOR WAS ABLE TO CONTAIN AND TREAT THE CONTAMINATION PROBLEM ON-SITE AND RESTORE THE AQUIFER TO A USABLE CONDITION. THE PROJECT WAS CARRIED OUT IN TWO PHASES: 1) THE CONTAMINANTS WERE CONTAINED AND RECOVERED BY RECOVERY SYSTEMS; AND 2) REMAINING CONTAMINANTS WERE TREATED IN SITU USING CONTAMINANT-SPECIFIC HYDROCARBON DEGRADING BACTERIA IN A MORE PASSIVE APPROACH.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N4

IRIS ACCESSION NUMBER: EW008472

PUBLICATION DATE: NOV 82

TITLE: ACIDIFICATION OF AQUATIC SYSTEMS: A CRITIQUE OF CHEMICAL APPROACHES.

PERSONAL AUTHOR: KRAMER, JAMES; TESSIER, ANDRE

DESCRIPTOR: *ACIDIFICATION; *AQUATIC SYSTEMS; *ALKALINITY; *CHEMICAL REACTIONS; *LAKES; *MODELS; *PH; *RESEARCH; *WATER QUALITY

DESCRIPTIVE NOTE: 606A-615AP.

ABSTRACT: THIS ARTICLE CONSIDERS ACIDIFICATION OF AQUATIC SYSTEMS. HISTORICAL WATER QUALITY DATA IS COMPARED WITH RECENT DATA.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N11

IRIS ACCESSION NUMBER: EW008473

PUBLICATION DATE: NOV 82

TITLE: WATER CHEMICALS CODEX.

PERSONAL AUTHOR: REHWOLDT, ROBERT

DESCRIPTOR: *ADDITIVES; *CHEMICALS; *DRINKING WATER; *REGULATIONS; *STANDARD; *WATER TREATMENT

DESCRIPTIVE NOTE: 616A-618AP.

ABSTRACT: PRESENTED IS A COMPILATION OF SPECIFICATIONS FOR THE PURITY OF CHEMICALS USED TO TREAT DRINKING WATER.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N11

IRIS ACCESSION NUMBER: EW008474

PUBLICATION DATE: NOV 82

TITLE: ORGANIC CARBON REMOVAL BY ADVANCED WASTE WATER TREATMENT PROCESSES.

PERSONAL AUTHOR: DEWALLE, FOPPE B.; AND OTHERS

DESCRIPTOR: *ADVANCED WASTEWATER TREATMENT; *CARBON; *OPERATIONS (WASTEWATER); *ORGANIC CARBON; *REVERSE OSMOSIS; *RESEARCH REPORTS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 741-746P.

ABSTRACT: DESCRIBED IS THE REMOVAL OF ORGANIC CARBON BY ADVANCED WASTEWATER TREATMENT PROCESSES. IN THIS STUDY OF 14 PHYSICAL CHEMICAL PROCESSES, THE LARGEST ORGANIC CARBON REMOVAL WAS OBTAINED WITH REVERSE OSMOSIS AT AN 85% PRODUCT WATER RECOVERY.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N11

IRIS ACCESSION NUMBER: EW008475

PUBLICATION DATE: NOV 82

TITLE: INITIAL SEDIMENTATION OF WASTE PARTICULATES

DISCHARGED FROM OCEAN OUTFALLS.
PERSONAL AUTHOR: KOH, ROBERT C. Y.

DESCRIPTOR: *CALIFORNIA; *ENVIRONMENTAL IMPACTS; *MODELS; *OCEANOGRAPHY; *OCEANS; *OCEAN OUTFALLS; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 757-763P.

ABSTRACT: DESCRIBED IS A MODEL THAT COULD BE USED TO ASSESS THE ENVIRONMENTAL CONSEQUENCES OF ALTERNATE STRATEGIES FOR OCEAN SLUDGE DISPOSAL IN SOUTHERN CALIFORNIA.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N11

IRIS ACCESSION NUMBER: EW008476

PUBLICATION DATE: NOV 82

TITLE: PERSISTENT ORGANIC CHEMICALS IN SEWAGE EFFLUENTS. 2. QUANTITATIVE DETERMINATIONS OF NONYPHENOLS AND NONYLPHENOL ETHOXYLATES BY GLASS CAPILLARY GAS CHROMATOGRAPHY.

PERSONAL AUTHOR: STEPHANOU, EURIPIDES; GIGER, WALTER

DESCRIPTOR: *EFFLUENTS; *NONYLPHENOLS; *NONYPHENOL ETHOXYLATES; *ORGANIC CHEMICALS; *RESEARCH REPORTS; *TOXIC SUBSTANCES; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 800-805P.

ABSTRACT: PRESENTED ARE QUANTITATIVE DETERMINATIONS OF NONYLPHENOLS AND NONYLPHENOL ETHOXYLATES FROM SECONDARY EFFLUENTS OF SEWAGE TREATMENT PLANTS.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY, V16 N11

IRIS ACCESSION NUMBER: EW008477

PUBLICATION DATE: NOV 82

TITLE: DESIGN OF THE LOS ANGELES WATER FILTATION PLANT.

PERSONAL AUTHOR: MCBRIDE, D. G.; AND OTHERS

DESCRIPTOR: *CALIFORNIA; *DRINKING WATER; *DESIGN; *FACILITIES; *FILTRATION; *OPERATIONS (WATER); *SITING; *WATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: DESCRIBED IS THE DEVELOPMENT OF CRITERIA FOR THE SITING AND DESIGN OF A WATER FILTRATION PLANT FOR THE LOS ANGELES AQUEDUCT.

AVAILABILITY: PUBLIC WORKS, V113 N11

IRIS ACCESSION NUMBER: EW008478
PUBLICATION DATE: NOV 82

TITLE: EFFLUENT LIMITATIONS BASED ON WATER QUALITY.

PERSONAL AUTHOR: TOUHEY, ROBERT J.; ESPOSITO, GERARD L.

DESCRIPTOR: *DELAWARE; *EFFLUENTS; *FACILITIES; *MODELS; *REGULATIONS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 43-46P.

ABSTRACT: DESCRIBED ARE THE DEVELOPMENT OF TREATMENT CRITERIA FOR TWO TOURIST-ORIENTED COMMUNITIES WHICH ARE BASED ON WASTE LOAD ALLOCATIONS.

AVAILABILITY: PUBLIC WORKS, V113 N11

IRIS ACCESSION NUMBER: EW008479

PUBLICATION DATE: NOV 82

TITLE: TELEVISING SAVES AN OLD PIPELINE SYSTEM - AND $150,000.

PERSONAL AUTHOR: GACHET, THOMAS H.

DESCRIPTOR: *COSTS; *MAINTENANCE; *REPAIRS; *SEWERS; *TELEVISION; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 42P.

ABSTRACT: DESCRIBED IS THE USE OF TELEVISION FOR PINPOINTING PROBLEM AREAS IN SEWERS. THE PROCEDURE HAS BEEN USED IN PIPE REPAIR AND SAVED SUBSTANTIAL COSTS.

AVAILABILITY: PUBLIC WORKS, V113 N11

IRIS ACCESSION NUMBER: EW008480

PUBLICATION DATE: NOV 82

TITLE: WATER MAIN CROSSES RIVER IN SIX HOURS.

PERSONAL AUTHOR: ALSTOTT, DAN L.

DESCRIPTOR: *CONSTRUCTION; *DRINKING WATER; *MICHIGAN; *PIPES; *WATER DISTRIBUTION; *WATER PIPES

DESCRIPTIVE NOTE: 58-59P.

ABSTRACT: DESCRIBED IS THE INSTALLATION OF A WATER MAIN IN AN UNDERWATER TRENCH.

AVAILABILITY: PUBLIC WORKS, V113 N11

IRIS ACCESSION NUMBER: EW008481
PUBLICATION DATE: NOV 82

TITLE: RESPONSIBILITY FOR RUNOFF CONTROL.

PERSONAL AUTHOR: RHOMBERG, EDWARD J.; MASON, JOHN M.

DESCRIPTOR: *DRAINAGE LAWS; *FLOOD CONTROL; *LEGISLATION; *POLLUTION CONTROL; *REGULATIONS; *STORMWATER; *SURFACE RUNOFF

DESCRIPTIVE NOTE: 60-62P.

ABSTRACT: EXAMINED ARE LEGAL ASPECTS RELATED TO STORMWATER MANAGEMENT.

AVAILABILITY: PUBLIC WORKS, V113 N11

IRIS ACCESSION NUMBER: EW008484

TITLE: BIOTECHNOLOGY IS TAKING ITS PLACE IN WASTEWATER TREATMENT.

PERSONAL AUTHOR: GRUBBS, R. B.

DESCRIPTOR: *BIOAUGMENTATION; *BIOTECHNOLOGY; *CASE STUDIES; ENERGY CONSERVATION; MUNICIPALITIES; *OPERATIONS (WASTEWATER); PRETREATMENT; SLUDGE HANDLING; *TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 6P. (213) 641-7722

ABSTRACT: THIS PAPER PRESENTS AN INTRODUCTION TO BIOAUGMENTATION AS IT PERTAINS TO MUNICIPAL WASTEWATER TREATMENT. TOPICS ADDRESSED INCLUDE: ALTERNATIVES TO CHEMICALS, ENERGY SAVINGS, SLUDGE HANDLING, PRETREATMENT, BASIC PRINCIPLES, AND COMMERCIAL APPLICATIONS. CASE STUDIES AND REFERENCES ARE INCLUDED.

AVAILABILITY: FLOW LABORATORIES, INC., ENVIRONMENTAL CULTURES DIVISION, 828 W., HILLCREST BOULEVARD, INGLEWOOD, CALIFORNIA 90301

IRIS ACCESSION NUMBER: EW008485

PUBLICATION DATE: JUN 72

TITLE: BACTERIA - THEIR ROLE IN THE SEWAGE TREATMENT PROCESS.

PERSONAL AUTHOR: BOWER, GERALD C.

DESCRIPTOR: *BACTERIA; *DECOMPOSITION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SPEECHES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS PUBLICATION CONTAINS A PRESENTATION ON

BACTERIA AND THEIR ROLE IN THE SEWAGE TREATMENT PROCESS.
AVAILABILITY: FLOW LABORATORIES, INC., ENVIRONMENTAL CULTURES DIVISION, 929 W. HILLCREST BOULEVARD, INGLEWOOD, CALIFORNIA 90301

IRIS ACCESSION NUMBER: EW008486

PUBLICATION DATE: JUN 81

TITLE: THE ROLE OF BACTERIA IN SEWER MAINTENANCE.

PERSONAL AUTHOR: GRUBBS, ROBERT B.

DESCRIPTOR: *BACTERIA; *DECOMPOSITION; *MAINTENANCE; *PERFORMANCE EVALUATION; *SEWERS; *SPEECHES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10P. (213) 641-7722

ABSTRACT: THIS PUBLICATION CONTAINS A BRIEF DISCUSSION OF THE ROLE OF BACTERIA IN SEWER MAINTENANCE.

AVAILABILITY: FLOW LABORATORIES, INC., ENVIRONMENTAL CULTURES DIVISION, 828 W. HILL CREST BOULEVARD, INGLEWOOD, CALIFORNIA 90301

IRIS ACCESSION NUMBER: EW008487

TITLE: ACTIVATED SLUDGE.

PERSONAL AUTHOR: MAKI, KENNETH V.; DELANO, E. HUNTLEY

DESCRIPTOR: *ACTIVATED SLUDGE; *BACTERIA; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *START-UP; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 133P.

ABSTRACT: PRESENTED IS A DETAILED DISCUSSION OF ACTIVATED SLUDGE IN THE WASTEWATER TREATMENT PROCESS. INCLUDED IN THE DISCUSSION IS A HISTORY OF THE PROCESS, THEORY OF THE PROCESS, MODIFICATIONS OF THE PROCESS, PLANT START-UP, MAINTENANCE, OPERATIONS, LABORATORY PROCEDURES, AND PROBLEMS. SOME PAGES HAVE MARGINAL LEGIBILITY.

AVAILABILITY: MICHIGAN DEPARTMENT OF PUBLIC HEALTH, DIVISION OF ENGINEERING.

IRIS ACCESSION NUMBER: EW008488

PUBLICATION DATE: JUL 82

TITLE: CONSTRUCTION GRANTS 1982 (CG-82), INTERIM FINAL.

DESCRIPTOR: *CONSTRUCTION; *CONSTRUCTION GRANTS PROGRAM; *DESIGN; *EPA; *FACILITIES; *FUNDING; *PROCUREMENT;

69

*REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 128P. 430/9-81-020

ABSTRACT: THIS BOOK CONTAINS GUIDANCE TO PARTICIPANTS IN EPA'S CONSTRUCTION GRANTS PROGRAM. IT PROVIDES INFORMATION AND SUGGESTED PROCEDURES TO HELP COMMUNITIES SUCCESSFULLY PLAN AND DESIGN MUNICIPAL SEWAGE TREATMENT WORKS, AND TO CONSTRUCT THEM WITH FEDERAL FINANCIAL SUPPORT. THE TEXT INCORPORATES FEDERAL REGULATORY REQUIREMENTS AND ALSO REFERS TO OTHER EPA GUIDANCE PUBLICATIONS. PART I CONSIDERS FACILITIES PLANNING, PART II CONSIDERS DESIGN, PART III CONSIDERS CONSTRUCTION, AND PART IV CONSIDERS FINANCIAL AND PROCUREMENT CONSIDERATIONS.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER PROGRAM OPERATIONS (WH-547), WASHINGTON, D.C. 20460

IRIS ACCESSION NUMBER: EW008489

PUBLICATION DATE: JUL 82

TITLE: CLEANING UP THE ENVIRONMENT: PROGRESS ACHIEVED BUT MAJOR UNRESOLVED ISSUES REMAIN, VOLUMES 1 AND 2.

DESCRIPTOR: *AIR POLLUTION; *AIR QUALITY; *ACID PRECIPITATION; *GROUNDWATER; *ENVIRONMENT; *ENVIRONMENTAL PROBLEMS; *NOISE POLLUTION; *POLLUTION CONTROL; *SOLID WASTES; *OCEAN DUMPING; *TRENDS; *WATER POLLUTION; *WATER QUALITY
DESCRIPTIVE NOTE: V. 1-58, V. 2-57P. (202) 275-6241

ABSTRACT: THIS STUDY WAS MADE TO DETERMINE (1) THE PROGRESS MADE TOWARD MEETING KEY ENVIRONMENTAL GOALS, (2) HOW SPECIFIC CITIES COPED WITH THESE MANDATES, AND (3) WHAT UNRESOLVED ISSUES FACE THE NATION IN THE FUTURE. THIS PERSPECTIVE CAN ASSIST THE CONGRESS IN UNDERSTANDING WHERE WE ARE AND WHAT DECISIONS ARE NEEDED FOR THE FUTURE. TOPICS CONSIDERED INCLUDE AIR QUALITY, WATER QUALITY, SOLID WASTE DISPOSAL, OCEAN DUMPING, NOISE ABATEMENT, ACID PRECIPITATION, WATER POLLUTION, GROUNDWATER, AND POLLUTION CONTROL.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD. 20760

IRIS ACCESSION NUMBER: EW008490

PUBLICATION DATE: 82

TITLE: WATER QUALITY MONITORING STRATEGY FOR THE OHIO RIVER AND LOWER REACHES OF MAJOR TRIBUTARIES.

DESCRIPTOR: *MONITORING; *OHIO RIVER; *ORSANCO; *PLANNING; *POLICIES; *RIVERS; *WATER QUALITY

DESCRIPTIVE NOTE: 73P.

ABSTRACT: THIS DOCUMENT DETAILS THE COMPLETE REVISED STRATEGY OF THE OHIO RIVER VALLEY WATER SANITATION COMMISSION FOR MONITORING THE OHIO RIVER AND THE LOWER REACHES OF ITS MAJOR TRIBUTARIES. REVISIONS HAVE BEEN MADE TO RECOGNIZE THE NEED FOR TOXICS CONTROL AND BIOLOGICAL MONITORING. AN EXPANDED BIOLOGICAL MONITORING PROGRAM IS INTRODUCED.

AVAILABILITY: OHIO RIVER VALLEY WATER SANITATION COMMISSION, 414 WALNUT ST. CINCINNATI, OHIO 45202

IRIS ACCESSION NUMBER: EW008491

TITLE: WASTEWATER TREATMENT BASIC LABORATORY COURSE WORKBOOK.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNICIANS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 98P.

ABSTRACT: THIS PUBLICATION IS DESIGNED TO SERVE AS A BASIC LABORATORY COURSE WORKBOOK FOR LABORATORY TECHNICIANS IN WASTEWATER TREATMENT FACILITIES. SECTIONS ARE INCLUDED FOR MOST ANALYSES TO BE PERFORMED. SUBSTANTIAL EMPHASIS IS GIVEN TO BOTH LABORATORY OPERATIONS AND LABORATORY TESTS.

AVAILABILITY: OPERATOR TRAINING COMMITTEE OF OHIO, INC., 5604 N. HIGH ST. COLUMBUS, OHIO 43085

IRIS ACCESSION NUMBER: EW008492

PUBLICATION DATE: AUG 82

TITLE: ABC TESTING SERVICE.

PERSONAL AUTHOR: MOEHLMANN, STEPHEN E.

DESCRIPTOR: *ABC; *CERTIFICATION; *EVALUATION; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *OPERATORS (WATER); *OPERATORS (WASTEWATER); *TESTS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 6P.

ABSTRACT: THIS PUBLICATION DESCRIBES THE ABC TESTING SERVICE, ITS MANAGEMENT, AND PROCEDURES FOR DEVELOPING, ADMINISTERING, AND SCORING TESTS. THE PROGRAM IS DESIGNED TO ASSIST IN THE CERTIFICATION OF WATER AND WASTEWATER PERSONNEL.

AVAILABILITY: ABC, P.O. BOX 2266, AMES, IOWA 50010 (515) 232-3623

IRIS ACCESSION NUMBER: EW008493

TITLE: IN OUR WATER.

PERSONAL AUTHOR: SWITZGABLE, MEG

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHEMICAL WASTES; *CHEMICAL POLLUTION; *DRINKING WATER; *FILMS; *HAZARDOUS WASTES; *GROUNDWATER; *NEW JERSEY; *SURFACE WATER; *POLLUTION; *TOXIC SUBSTANCES; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 58 MIN.P. 16MM, COLOR

ABSTRACT: THIS FILM IS A 58-MINUTE INVESTIGATIVE DOCUMENTARY BASED ON A CASE STUDY OF CHEMICAL POLLUTION IN LOCAL DRINKING, WATER, REFLECTING A SERIOUS PROBLEM BOTH TO THE STATE OF NEW JERSEY AND TO THE NATION. THE FILM FOCUSES ON PROBLEMS IN NEW JERSEY AND PRESENTS A CALL TO ACTION BY THE PUBLIC TO PROTECT AND PRESERVE OUR ENVIRONMENT AND TO TAKE SPEEDY AND EFFICIENT ACTION TO CLEAN UP POISONOUS DUMPS.

AVAILABILITY: FORESIGHT FILMS, 18 2ND PLACE, BROOKLYN, NEW YORK (212) 522-5941

IRIS ACCESSION NUMBER: EW008494

PUBLICATION DATE: 81

TITLE: PERMEABILITY AND GROUND WATER CONTAMINANT TRANSPORT.

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *HYDROLOGY; *PERMEABILITY; *POLLUTION; *SOILS; *WATER CONTAMINATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 245P. HARD COVER $28.00; PCN:04-746000-38

ABSTRACT: PROBLEMS FACED BY GEOTECHNICAL ENGINEERS AND GEOLOGISTS WHO ARE CURRENTLY INVOLVED IN GROUNDWATER SEEPAGE ANALYSIS AND EVALUATION OF CONTAMINANT TRANSPORT PROBLEMS ARE COVERED IN THIS PUBLICATION. PERMEABILITY-HYDRAULIC CONDUCTIVITY-IS ONLY ONE OF THE MANY PARAMETERS REQUIRED TO PREDICT GROUNDWATER CONTAMINANT TRANSPORT. TWELVE PAPERS ARE CONTAINED IN STP 746, THE LATEST ASTM PUBLICATION TO DEAL WITH THE HYDROLOGIC PROPERTIES OF SOIL AND ROCK. A FURTHER ADDITION TO THIS TEXT IS A GLOSSARY OF TERMS SPECIFIC TO THE FIELD.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008495

PUBLICATION DATE: 81

TITLE: AQUATIC TOXICOLOGY AND HAZARD ASSESSMENT (4TH CONFERENCE).

DESCRIPTOR: ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENTS; CHEMICALS; CHEMISTRY; *CONFERENCE PROCEEDINGS; ENVIRONMENTAL INFLUENCES; *HAZARD ASSESSMENT; MODELING; *RESEARCH REPORTS; *TOXICOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 466P. HARD COVER $43.00; PCN: 04-737000-16

ABSTRACT: THIS BOOK CONTAINS THE PAPERS PRESENTED AT THE FOURTH ANNUAL ASTM SYMPOSIUM ON AQUATIC TOXICOLOGY COVERING DISCUSSIONS OF NEW CONCEPTS, METHODS AND RESEARCH RESULTS IN AQUATIC TOXICOLOGY AND HAZARD ASSESSMENT. THIS BOOK IS BROKEN DOWN INTO THREE SECTIONS: SAFETY MARGINS-THEIR ROLE IN ASSESSING THE HAZARDS OF CHEMICALS IN AQUATIC ENVIRONMENTS; ENVIRONMENTAL CHEMISTRY AND FATE MODELING; AND APPLICATION OF AQUATIC HAZARD ASSESSMENT PRINCIPLES. THIS BOOK CONTAINS INFORMATION FOR SCIENTISTS, AQUATIC TOXICOLOGISTS AND OTHERS INTERESTED IN THE AFFECTS OF CHEMICALS ON AQUATIC LIFE.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008496

PUBLICATION DATE: 81

TITLE: WATER FOR SUBSURFACE INJECTION.

DESCRIPTOR: CORROSION; *DESIGN; *ENGINEERING; *FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *RESERVOIRS; *SUBSURFACE INJECTION; *WATER INJECTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 150P. HARD COVER $14.00; PCN: 04-735000-16

ABSTRACT: THIS BOOK COVERS FOUR AREAS IN THE DESIGN AND OPERATION OF WATER INJECTION SYSTEMS: FILTRATION, CORROSION QUALITY, RESERVOIR CONSIDERATIONS, AND TREATMENT METHODS. THE TEXT IS DESIGNED FOR THE WATERFLOOD OPERATOR, THE PROJECT DESIGN ENGINEER, AND FOR ALL WHO DESIGN, OPERATE, AND MANAGE WATER INJECTION SYSTEMS.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008497

PUBLICATION DATE: 80

TITLE: AQUATIC INVERTEBRATE BIOASSAYS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ORGANISMS; *BIOASSAYS; *DATA ANALYSIS; *HAZARD ASSESSMENT; *INSTRUCTIONAL MATERIALS; *INVERTEBRATES; *POST SECONDARY EDUCATION; *RESEARCH REPORTS; STATE-OF-THE-ART REVIEWS; *TESTING; *TOXICITY; *WATER QUALITY

DESCRIPTIVE NOTE: 218P. HARD COVER $24.00; PCN: 04-715000-16

ABSTRACT: THIS BOOK PRESENTS A COMPREHENSIVE REVIEW OF THE USE OF INVERTEBRATES IN TOXICITY TESTING AND HAZARD EVALUATION. THIS INFORMATION IS ESPECIALLY IMPORTANT AS REGULATORY AGENCIES DEVELOP REQUIREMENTS FOR THE EVALUATION OF POTENTIAL EFFECTS OF EFFLUENTS AND PURE COMPOUNDS. DISCUSSIONS RANGE FROM COMPREHENSIVE EVALUATIONS OF SPECIFIC ORGANISMS TO PROPOSALS FOR ALTERNATIVES TO STATE-OF-THE-ART METHODS. THIS TEXT IS USEFUL TO ANYONE INVOLVED IN ROUTINE TOXICITY TESTING AND EVALUATION, THE DEVELOPMENT OR REFINEMENT OF TOXICITY TESTING AND EVALUATION, THE DEVELOPMENT OR REFINEMENT OF TOXICITY TEST METHODS, OR THE INTERPRETATION OF TOXICITY DATA.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008498

PUBLICATION DATE: 80

TITLE: AQUATIC TOXICOLOGY (3RD CONFERENCE).

DESCRIPTOR: ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENTS; BIOCONCENTRATION; *CONFERENCE PROCEEDINGS; EFFLUENTS; *MANAGEMENT; *MONITORING; *RESEARCH REPORTS; TESTING; *TOXICOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 417P. HARD COVER $39.50; PCN: 04-707000-16

ABSTRACT: THIS BOOK PRESENTS THE PROCEEDINGS OF THE THIRD ANNUAL SYMPOSIUM ON AQUATIC TOXICOLOGY. THIS VOLUME REPRESENTS ESSENTIALLY ALL THE BASIC AND APPLIED ASPECTS OF AQUATIC TOXICOLOGY. SUCH SUBJECTS AS BIOLOGICAL MONITORING, TOXICOLOGY METHODS DEVELOPMENT, BIOCONCENTRATION, WATER QUALITY MANAGEMENT, EFFLUENT TESTING, PHYSIOLOGY AND BEHAVIOR, AND SINGLE TOXICANT EFFECTS ARE ADDRESSED.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008499

PUBLICATION DATE: 80

TITLE: DISPOSAL OF OIL AND DEBRIS RESULTING FROM A SPILL CLEANUP OPERATION.

DESCRIPTOR: AQUATIC ENVIRONMENTS; CASE STUDIES; GROUNDWATER; HAZARDOUS MATERIALS; INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; LANDFILLS; *OIL DISPOSAL; *OIL SPILLS; *POLLUTION CONTROL; *POST SECONDARY EDUCATION; *RECOMMENDATIONS; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 158P. SOFT COVER $15.75; PCN: 04-703000-16

ABSTRACT: THIS VOLUME IS A REEXAMINATION OF THE DISPOSAL OPTIONS FOR OIL SPILL DEBRIS. THE CONTENTS INCLUDE RECOMMENDATIONS FOR LAND DISPOSAL OF OIL SPILL AND CLEANUP DEBRIS, DISPOSAL SYSTEMS FOR OIL RECOVERED FROM MARINE SPILLS, DISPOSAL OF OILY WASTE FROM OIL SPILLS BY LAND FARMING, EMERGENCY DISPOSAL OF OIL SPILL AND WASTES IN NORTHERN AND CENTRAL CALIFORNIA, PRACTICAL EXPERIENCES IN THE HANDLING AND DISPOSAL OF WATER-IN-OIL EMULSIONS, REFINERY OILY WASTE TREATMENT AND DISPOSAL TECHNIQUES AND THEIR POTENTIAL APPLICATION TO OIL SPILL DEBRIS, A MOBILE SYSTEM FOR THE DETOXIFICATION/INCINERATION OF CLEANUP RESIDUALS FROM HAZARDOUS MATERIAL SPILLS, AND MUCH MORE.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008500

PUBLICATION DATE: 77

TITLE: BACTERIAL INDICATORS/HEALTH HAZARDS ASSOCIATED WITH WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIA; *BIOLOGICAL INDICATORS; *EVALUATION; *MICROBIOLOGY; *MONITORING; *STANDARDS; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 363P. HARD COVER $34.75; PCN:04-63500-16

ABSTRACT: A CURRENT WORLDWIDE REVIEW ON TRADITIONAL INDICATORS USED IN WATER QUALITY ASSESSMENT. TWENTY-FIVE PAPERS COVER AUTOMATED MONITORING TECHNIQUES, CLASSIFICATION OF ENVIRONMENTAL ENTERIC STRAINS, R-FACTORS AND SALMONELLAE, USE OF BACTERIA IN EVALUATION OF WATER QUALITY AND WATER SUPPLY.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX710-670-1037

IRIS ACCESSION NUMBER: EW008501

PUBLICATION DATE: 77

TITLE: AQUATIC TOXICOLOGY AND HAZARD EVALUATION (1ST CONFERENCE).

DESCRIPTOR: *AQUATIC TOXICOLOGY; *CHEMICALS; *ECOSYSTEMS; *ENVIRONMENTAL IMPACTS; *HAZARD EVALUATION; *CONFERENCE REPORTS; *PESTICIDES; *RESEARCH; *TOXICOLOGY; *WATER; *WATER QUALITY

DESCRIPTIVE NOTE: 315P. HARD COVER $30.75; PCN:04-634000-16

ABSTRACT: A PIONEER ATTEMPT TO ASSESS THE SAFETY OF CHEMICALS THAT DIRECTLY OR INDIRECTLY AFFECT WATERBASED

ECOSYSTEMS. TWENTY-TWO PAPERS PROVIDE STATE-OF-THE-ART FOR RESEARCH APPROACHES, NEW APPLICATIONS OF OLD METHODS, NEW DATA ON SEVERAL PESTICIDES AND OTHER CHEMICALS.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE ST. PHILADELPHIA, PA. 19103 (215) 299-5585 TELEX670-710-1037

IRIS ACCESSION NUMBER: EW008502

PUBLICATION DATE: 78

TITLE: MANUAL ON WATER.

DESCRIPTOR: *INDUSTRIES; *MANUFACTURING; *OPERATIONS (WATER); *WATER; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 471P. SOFT COVER $28.50; PCN:04-442010-16

ABSTRACT: THE FOURTH EDITION OFFERS INFORMATION ON THE INFLUENCE OF WATER IN INDUSTRIES WHERE IT IS USED AS A RAW MATERIAL OR IN CONJUNCTION WITH A MANUFACTURING PROCESS. IT CONTAINS A GUIDE TO TREATMENT PROBLEMS AND HAS SPECFIC INFORMATION NOT ASSEMBLED ELSEWHERE. FIVE NEW CHAPTERS INCLUDE CHARACTERISTICS OF WATER, PROBLEM AREAS, AND NEW APPROACHES FOR IDENTIFICATION AND SOLUTIONS.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 191 RACE ST. PHILADELPHIA PA. 19103 (215) 299-5585 TELEX670-710-1037

IRIS ACCESSION NUMBER: EW008503

PUBLICATION DATE: 81

TITLE: REVIEW MANUAL FOR OPERATORS.

PERSONAL AUTHOR: BROWN, WM. ELGAR; SACKS, RICHARD S.

DESCRIPTOR: CHEMISTRY; EQUIPMENT; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *OPERATOR TRAINING; *POST SECONDARY EDUCATION; PROCESS DESCRIPTIONS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 182P. $16.95; 250-40501-6

ABSTRACT: THIS TEXT OFFERS STEP-BY-STEP PROCEDURES, EXAMPLE PROBLEMS, AND REVIEW INFORMATION COVERING VARIOUS PHASES OF WATER TREATMENT PLANT OPERATIONS. CHAPTERS FEATURED IN THIS DETAILED GUIDE INCLUDE: BACTERIOLOGY, BIOLOGICAL EXAMINATION, BASIC CHEMISTRY, DISINFECTION, FILTRATION, HYDRAULICS, OPERATIONS AND TREATMENT, AND PUMPS. THIS MANUAL IS USEFUL IN TRAINING, TESTING, CERTIFICATION, AND AS A REFERENCE.

AVAILABILITY: ANN ARBOR SCIENCE, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008504

PUBLICATION DATE: 81

TITLE: MATHEMATICS MANUAL FOR OPERATORS.

PERSONAL AUTHOR: WAY, ERIC J.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *LABORATORY SKILLS; *MATHEMATICS; *MATHEMATICAL APPLICATIONS; *OPERATOR TRAINING; *POST SECONDARY EDUCATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 110P. $16.95; 250-40502-4

ABSTRACT: THIS TEXT OFFERS STEP-BY-STEP PROCEDURES, EXAMPLE PROBLEMS, AND REVIEW INFORMATION COVERING VARIOUS ASPECTS OF WATER TREATMENT PLANT OPERATIONS. CHAPTERS FEATURED IN THIS DETAILED GUIDE INCLUDE: USES OF A CALCULATOR, DECIMALS, FRACTIONS AND PERCENTAGES, BASIC ALGEBRA, UNITS AND CONVERSIONS, CALCULATIONS OF AREAS AND VOLUMES, VELOCITY, FLOWRATES AND DETENTION TIME, CALCULATION OF WEIGHT RELATIONSHIPS, CALCULATION OF EFFICIENCIES, AND LABORATORY MATHEMATICS. THIS MANUAL IS USEFUL IN TRAINING, TESTING, CERTIFICATION, AND AS A REFERENCE.

AVAILABILITY: ANN ARBOR SCIENCE, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008505

PUBLICATION DATE: 81

TITLE: HYDRAULICS MANUAL FOR OPERATORS.

PERSONAL AUTHOR: BROWN, WM. ELGAR

DESCRIPTOR: FLOW MEASUREMENT; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); PIPES (WATER); *POST SECONDARY EDUCATION; PUMPS; *WATER TREATMENT

DESCRIPTIVE NOTE: 145P. $19.95; 250-40503-2

ABSTRACT: THIS TEXT OFFERS STEP-BY-STEP PROCEDURES, EXAMPLE PROBLEMS, AND REVIEW INFORMATION COVERING VARIOUS ASPECTS OF WATER TREATMENT PLANT OPERATIONS. CHAPTERS IN THIS DETAILED GUIDE INCLUDE: HYDRAULIC CONCEPTS, PRESSURE, FUNDAMENTALS OF FLOW, PIPE FLOW WITH FRICTION LOSS, COMPOUND PIPES, MINOR LOSSES IN FLUID FLOW, FLOW IN OPEN CHANNELS, FLOW MEASUREMENTS, AND PUMP TYPES AND CHARACTERISTICS. THIS MANUAL IS USEFUL IN TRAINING, TESTING, CERTIFICATION, AND AS A REFERENCE.

AVAILABILITY: ANN ARBOR SCIENCE, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008506

PUBLICATION DATE: 81

TITLE: CHEMISTRY MANUAL FOR OPERATORS.

PERSONAL AUTHOR: FOUNTAIN, ROBERT L.
DESCRIPTOR: *CHEMISTRY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 148P. $16.95; 250-40504-0

ABSTRACT: THIS TEXT OFFERS STEP-BY-STEP PROCEDURES, EXAMPLE PROBLEMS, AND REVIEW INFORMATION COVERING VARIOUS ASPECTS OF WATER TREATMENT PLANT OPERATIONS. CHAPTERS IN THIS DETAILED GUIDE INCLUDE: ATOMS AND ELEMENTS, CHEMICAL BONDING AND COMPOUNDS, STATES OF MATTER, SOLUTIONS, ACIDS AND BASES, CHLORINATION, ALKALINITY, COAGULATION AND FLOCCULATION, WATER SOFTENING, AND PHOSPHOROUS AND NITROGEN REMOVAL. THIS MANUAL IS USEFUL IN TRAINING, TESTING, CERTIFICATION, AND AS A REFERENCE.

AVAILABILITY: ANN ARBOR SCIENCE, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008509

PUBLICATION DATE: JAN 81

TITLE: REPORT OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS.

DESCRIPTOR: ADMINISTRATION; ECONOMIC FACTORS; ENERGY PRODUCTION; FEDERAL GOVERNMENT; FEDERAL PROGRAMS; GROUNDWATER; IRRIGATION; LEGAL ASPECTS; MANAGEMENT; *NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS; PLANNING; *POLICY FORMATION; *PUBLIC POLICY; *RECOMMENDATIONS; RECREATION; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 7P.

ABSTRACT: THIS PUBLICATION PRESENTS THE WATER POLICY STATEMENT OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS' WATER POLICY TASK FORCE. THE TASK FORCE WAS ESTABLISHED TO STUDY THE NATION'S WATER POLICIES AND THE MECHANISMS FOR SETTING POLICY AND CARRYING OUT WATER RESOURCES PLANNING. THIS POLICY STATEMENT CONTAINS AN EXECUTIVE SUMMARY, TASK FORCE FINDINGS, AND RECOMMENDATIONS.

AVAILABILITY: NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS, 2029 K STREET, NW WASHINGTON, D.C. 20006 (202) 463-2300

IRIS ACCESSION NUMBER: EW008511

PUBLICATION DATE: SEP 82

TITLE: TREATABILITY MANUAL, USER GUIDE/INDEX.

DESCRIPTOR: ACIDS; BASES; CHEMICALS; *COSTS; *GUIDELINES; INDUSTRY; *INDUSTRIAL WASTES; METALS; *OPERATIONS (WASTEWATER); ORGANIC COMPOUNDS; *POLLUTANTS; *PERFORMANCE EVALUATION; PESTICIDES; *TECHNOLOGY; *TOXIC SUBSTANCES; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20P. EPA-600/2-82-085
ABSTRACT: THIS USER GUIDE/INDEX IS DESIGNED TO PRESENT A DIRECT GUIDE TO TYPES OF INFORMATION IN THE TREATABILITY MANUAL AND THE LOCATION OF THAT INFORMATION. THERE ARE FOUR VOLUMES AVAILABLE FROM THE U.S. GOVERNMENT PRINTING OFFICE (GPO). VOLUME I CONTAINS TREATABILITY DATA AND DESCRIPTIONS OF 200 TOXIC POLLUTANTS. VOLUME II CONTAINS INDUSTRIAL DESCRIPTIONS OF "PRIMARY INDUSTRIES" NAMED IN THE NRDC CONSENT AGREEMENT. VOLUME III PRESENTS TECHNOLOGIES FOR CONTROL/REMOVAL OF POLLUTANTS. VOLUME IV PRESENTS COST ESTIMATES FOR PROCESSING.

AVAILABILITY: OFFICE OF RESEARCH AND DEVELOPMENT, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C. 20460

IRIS ACCESSION NUMBER: EW008512

PUBLICATION DATE: JAN 82

TITLE: FATE OF PRIORITY POLLUTANTS IN PUBLICLY OWNED TREATMENT WORKS - 30 DAY STUDY.

DESCRIPTOR: *INFLUENTS; *EFFLUENTS; *PERFORMANCE EVALUATION; *POLLUTANTS; *SAMPLING; *RESEARCH REPORTS; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: NTIS NO. PB82-263880; MICHROFICHE - $4.00; PAPER COPY - $22.50

ABSTRACT: THE EFFLUENT GUIDELINES DIVISION (EGD) RECENTLY COMPLETED A STUDY TO DOCUMENT THE VARIABILITY OF PRIORITY TOXIC POLLUTANTS IN THE INFLUENT TO A PUBLICLY OWNED TREATMENT WORKS (POTW) DURING A 30 CONSECUTIVE DAY PERIOD AND TO DETERMINE THE FATE OF THOSE POLLUTANTS IN A POTW. INFLUENT, PRIMARY EFFLUENT, SECONDARY EFFLUENT, PRIMARY SLUDGE, AND SECONDARY SLUDGE SAMPLES WERE COLLECTED AT A CONVENTIONAL ACTIVATED SLUDGE POTW AND ANALYZED FOR PRIORITY POLLUTANTS, CONVENTIONAL POLLUTANTS, AND SELECTED NON-CONVENTIONAL POLLUTANTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008513

PUBLICATION DATE: SEP 82

TITLE: COMPARISON OF FIELD TESTING OF DO ANALYZERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CASE STUDIES; *DISSOLVED OXYGEN ANALYZERS; *EQUIPMENT; *FIELD TESTS; *INSTRUMENTATION; *PERFORMANCE EVALUATION; *REPORTS; *TESTING; TEST PROCEDURES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 21P.

ABSTRACT: THIS PUBLICATION PRESENTS THE RESULTS OF AN ANALYSIS OF THE TEST REPORTS OF SIX AGENCIES ON DISSOLVED

OXYGEN ANALYZERS. THE REPORT WAS PREPARED TO DEMONSTRATE ONE OF THE POTENTIAL PRODUCTS WHICH MAY BE EXPECTED FROM A NATIONWIDE WATER AND WASTEWATER INSTRUMENTATION TESTING SERVICE. EMPHASIS WAS ON EXAMINING THE VARIOUS TEST'S PROTOCOL, PROCEDURES, AND DATA. MAJOR ERRORS IN TEST PROTOCOL, TEST EXECUTION, QUALITY CONTROL, AND WRITE-UP OF RESULTS WERE FOUND.

AVAILABILITY: AMERICAN PUBLIC WORKS ASSOCIATION, 1313 EAST 60TH STREET CHICAGO, ILLINOIS 60637 (312) 947-2530

IRIS ACCESSION NUMBER: EW008516

PUBLICATION DATE: MAR 82

TITLE: EVALUATION OF WATER-SURE (TRADE NAME) 050 CHLORINATION UNIT.

PERSONAL AUTHOR: SHALL, CINDY M.

DESCRIPTOR: *CHLORINATION; *DISINFECTION; *DRINKING WATER; *EQUIPMENT; *MOBILE EQUIPMENT; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER-SURE; *WATER TREATMENT

DESCRIPTIVE NOTE: 16P. AD-A115 797/3; PRICE CODE: PC A02/MF A01

ABSTRACT: THIS REPORT COVERS AN INVESTIGATION CONDUCTED TO EVALUATE THE OPERATIONAL EFFECTIVENESS OF THE WATER-SURE (TRADE NAME) 050 CHLORINATION UNIT. THE RESULTS OF THE STUDY INDICATE THAT THE WATER-SURE (TRADE NAME) 050 UNIT IS AN EFFECTIVE METHOD FOR CHLORINATING WATER AND COULD BE USED UNDER FIELD CONDITIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008517

PUBLICATION DATE: FEB 82

TITLE: TECHNOLOGY ASSESSMENT OF FINE BUBBLE AERATORS.

PERSONAL AUTHOR: MCCARTHY, JEREMIAH J.

DESCRIPTOR: *AERATORS; *BUBBLE AERATORS; *ENERGY CONSERVATION; *EQUIPMENT; *OXYGENATION; RESEARCH REPORTS; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 59P. PB82-237751; PRICE CODE: PC A04/MF A01

ABSTRACT: THIS TECHNOLOGY ASSESSMENT ADDRESSES DESIGN AND EVALUATION OF FINE BUBBLE AERATION EQUIPMENT. IT DISCUSSES THE ASSOCIATED GAS TRANSFER THEORY USED AS THE BASIS FOR MEASURING WATER AND WASTEWATER OXYGENATION EFFICIENCY. MIXING REQUIREMENTS ARE ALSO DISCUSSED. WHILE BUBBLE AERATION IS NOT NEW TECHNOLOGY, INCREASING POWER COSTS AND THE POTENTIAL FOR RELATIVELY HIGH OXYGEN TRANSFER EFFICIENCY HAS GENERATED RENEWED INTEREST IN THE PERFORMANCE OF FINE

BUBBLE WASTEWATER AERATION EQUIPMENT. THE MANY INTERRELATED VARIABLES AFFECTING MEASUREMENT AND EFFICIENCY OF FINE BUBBLE AERATION SYSTEMS ARE IDENTIFIED AND DISCUSSED. COMPARISON WITH OTHER AERATION METHODS IS MADE, AND AN ESTIMATE OF THE POTENTIAL NATIONAL IMPACT OF FINE BUBBLE AERATION ON WASTEWATER TREATMENT ENERGY SAVINGS IS PRESENTED. RESEARCH AND DEVELOPMENT EFFORTS WHICH ARE NEEDED TO IMPROVE FINE BUBBLE AERATOR PERFORMANCE ARE IDENTIFIED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008518

PUBLICATION DATE: MAY 82

TITLE: EVALUATING THE HEAT PUMP ALTERNATIVE FOR HEATING ENCLOSED WASTEWATER TREATMENT FACILITIES IN COLD REGIONS.

PERSONAL AUTHOR: MARTEL, C. JAMES; PHETTEPLACE GARY E.

DESCRIPTOR: *ALASKA; *CASE STUDIES; *ENERGY CONSERVATION; *ENERGY RECOVERY; *HEATING; *HEAT PUMPS; *FACILITIES; *MAINE; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 26P. AD-A116 385/6; PRICE CODE: PC A03/MF A01

ABSTRACT: THIS REPORT PRESENTS A FIVE-STEP PROCEDURE FOR EVALUATING TECHNICAL AND ECONOMIC FEASIBILITY OF USING HEAT PUMPS TO RECOVER HEAT FROM TREATMENT PLANT EFFLUENT. THE PROCEDURE IS MEANT TO BE USED AT THE FACILITY PLANNING LEVEL BY ENGINEERS WHO ARE UNFAMILIAR WITH THIS TECHNOLOGY. AN EXAMPLE OF THE USE OF THE PROCEDURE AND GENERAL DESIGN INFORMATION ARE PROVIDED. ALSO, THE REPORT REVIEWS THE OPERATIONAL EXPERIENCE WITH HEAT PUMPS AT WASTEWATER PLANTS LOCATED IN FAIRBANKS, ALASKA, MADISON, WISCONSIN, AND WILTON, MAINE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008519

PUBLICATION DATE: APR 82

TITLE: EVALUATION OF ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY FOR CIVIL WORKS RECREATIONAL AREAS.

PERSONAL AUTHOR: SMITH, ED D.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *CASE STUDIES; *EQUIPMENT; *FACILITIES; *ECONOMICS; *PERFORMANCE EVALUATION; *ROTATING BIOLOGICAL CONTACTORS; *RECREATION AREAS; *SELECTION CRITERIA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 104P. AD-A116 759/2; PRICE CODE: PC A06/MF A01

ABSTRACT: THE OBJECTIVE OF THIS STUDY WAS TO INVESTICATE THE APPLICABILITY OF ROTATING BIOLOGICAL CONTACTOR (RBC) TECHNOLOGY FOR TREATING WASTEWATERS GENERATED AT TYPICAL U.S. ARMY CORPS OF ENGINEERS RECREATION AREAS. THIS REPORT OUTLINES SELECTION CRITERIA FOR CIVIL WORKS PERSONNEL WHO MUST DECIDE WHETHER TO USE RBCS, PROVIDES RBC CASE HISTORIES FOR USE AT CORPS RECREATIONAL AREAS, AND PRESENTS GUIDANCE TO ENSURE THAT RBC USE IS BOTH ECONOMICAL AND COMPATIBLE WITH THE CORPS' NEEDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008520

PUBLICATION DATE: JUL 82

TITLE: WATER QUALITY MODELING: HYDROLOGICAL SYSTEMS. 1977-JULY 1982. (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *ECONOMICS; *HYDROLOGY; *HYDROLOGIC MODELS; *MODELS; *POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 297P. PB82-871518; PRICE CODE: PC N01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TECHNIQUES AND USES OF HYDROLOGIC MODELS. MODELS ARE USED FOR HYDROLOGIC TRANSPORT, CATCHMENT, STORAGE, STREAM FLOW, AQUIFER MANAGEMENT, AND WATER QUALITY IN TERMS OF SEDIMENT, SALINITY, AND POLLUTANTS. SOME MODELS ADDRESS THE ECONOMIC FACTORS OF WATERSHEDS AND RIVERS. A FEW OF THE CITATIONS RELATE TO DATA COLLECTION FOR MODEL STUDIES. (CONTAINS 217 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008521

PUBLICATION DATE: MAY 82

TITLE: WATER RESOURCES MANAGEMENT: NONPOINT SOURCE POLLUTION TECHNICAL REPORT.

PERSONAL AUTHOR: OBERTS, GARY L.

DESCRIPTOR: *LAKES; *MINNESOTA; *MANAGEMENT; *MODELS; *MONITORING; *NONPOINT SOURCE POLLUTION; *SURFACE RUNOFF; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 260P. PB82-225087; PRICE CODE: PC A12/MF A01

ABSTRACT: NONPOINT SOURCE POLLUTION HAS BEEN FOUND TO BE A WIDESPREAD AND SERIOUS PROBLEM IN THE METROPOLITAN TWIN CITIES AREA, MINNESOTA. THE RUNOFF MONITORING PROGRAM CONSISTED OF PRECIPITATION, RUNOFF, AND WATER QUALITY DATA

COLLECTION AT 17 SITES. SUBSEQUENT STATISTICAL MODELING ALLOWED FOR PROJECTION OF THIS DATA IN TIME AND SPACE OVER THE ENTIRE REGION. A CONCURRENT LAKES SAMPLING PROGRAM WAS CONDUCTED ON 60 LAKES IN THE REGION TO ASSESS THE NATURE OF RUNOFF IMPACT ON LAKES. SNOWMELT WAS FOUND TO BE A VERY SIGNIFICANT CONTRIBUTOR TO ANNUAL POLLUTANT LOADING.

AVAILABILITY: NATIONAL TECHNICAL INFORMAITON SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008522

PUBLICATION DATE: JUL 82

TITLE: A MICROPROCESSOR ASCII CHARACTER BUFFERING SYSTEM.

PERSONAL AUTHOR: TEUSCHLER, JOHN M.; AND OTHERS

DESCRIPTOR: *COMPUTERS; *COMPUTER APPLICATIONS; *INFORMATION TRANSFER; *INSTRUMENTATION; *LABORATORY EQUIPMENT; *MICROPROCESSORS; *MICROPROCESSOR BUFFERING SYSTEMS

DESCRIPTIVE NOTE: 144P. PB82-242074; PRICE CODE: PC A07/MF A01

ABSTRACT: A MICROPROCESSOR BUFFERING SYSTEM (MBS) WAS DEVELOPED AT THE ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY-CINCINNATI (EMSL-CI) TO PROVIDE AN EFFICIENT TRANSFER FOR SERIAL ASCII INFORMATION BETWEEN INTELLIGENT INSTRUMENT SYSTEMS AND A DATA GENERAL NOVA LABORATORY AUTOMATION COMPUTER SYSTEM. SINCE THE MBS IS FIELD PROGRAMMABLE, THE DESIGN IS EXPECTED TO SATISFY MANY OF THE AGENCY'S NEEDS TO TRANSFER DATA FROM INTELLIGENT INSTRUMENT' COMPUTER SYSTEMS TO THE STANDARD EPA LABORATORY AUTOMATION SYSTEM. THE SYSTEM HAS THE CAPABILITY OF TRANSFERRING INFORMATION SIMULTANEOUSLY FROM THREE INTELLIGENT INSTRUMENT SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008523

PUBLICATION DATE: 82

TITLE: DRINKING WATER AND LEGIONNAIRES' DISEASE.

PERSONAL AUTHOR: DUFOUR, ALFRED P.; JAKUBOWSKI, WALTER

DESCRIPTOR: *DISEASES; *DRINKING WATER; *DISINFECTION; *HEALTH EFFECTS; *HOSPITALS; *HOTELS; *LEGIONNAIRES' DISEASE; *PATHOGENS; *PNEUMONIA; *PUBLIC HEALTH; *RESEARCH REPORTS; *WATER SUPPLY

DESCRIPTIVE NOTE: 39P. PB82-239302; PRICE CODE: PC A03/MF A01

ABSTRACT: PNEUMONIA OUTBREAKS CAUSED BY LEGIONELLA SPECIES RECENTLY HAVE BEEN EPIDEMIOLOGICALLY LINKED TO POTABLE WATER

DISTRIBUTION SYSTEMS IN HOSPITALS AND HOTELS. SHOWERHEADS WERE CONFIRMED AS THE IMMEDIATE SOURCE OF THE LEGIONELLA IN MANY OF THE OUTBREAKS, HOWEVER, THE ORGANISM ALSO WAS ISOLATED FROM OTHER PARTS OF THE WATER DISTRIBUTION SYSTEMS, SUCH AS WATER TAPS AND STORAGE TANKS. LEGIONELLA ALSO HAVE BEEN ISOLATED FROM BUILDING WATER DISTRIBUTION SYSTEMS IN THE ABSENCE OF THE DISEASE AND THIS HAS LED TO QUESTIONS ABOUT THE NEED TO DISINFECT ALL SYSTEMS IN WHICH THE ORGANISM IS FOUND. IN DISEASE OUTBREAK SITUATIONS, WHERE THE REQUIREMENT FOR DISINFECTION IS APPROPRIATE, CHLORINATION APPEARS TO BE THE METHOD OF CHOICE. HIGH TEMPERATURE (60C FOR 72 HOURS) WAS PARTIALLY EFFECTIVE FOR REMOVING MOST OF THE LEGIONELLA FOR 1 TO 2 MONTH PERIODS. OZONE AND ULTRAVIOLET IRRADIATION WERE NOT EFFECTIVE. THE ROLE OF POTABLE WATER AS A VEHICLE FOR THE TRANSMISSION OF LEGIONELLA SPECIES IS AMBIGUOUS, SINCE THE ORGANISMS HAVE NOT BEEN ISOLATED FROM MAINS DELIVERING WATER TO BUILDINGS WHOSE POTABLE WATER PLUMBING SYSTEMS HAVE YIELDED THE ORGANISM. RECOMMENDATIONS FOR THE CONTROL OF LEGIONELLA THAT ARE CONSISTENT WITH THE CURRENT STATE OF OUR KNOWLEDGE OF THIS PATHOGEN ARE DISCUSSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008524

PUBLICATION DATE: 78

TITLE: A GLOSSARY OF TERMS USED IN MEASUREMENT AND CONTROL SYSTEMS IN THE WATER INDUSTRY.
DESCRIPTOR: *ADMINISTRATION; *CONTROLS; *COMPUTERS; *ENGINEERING; *GLOSSARIES; *INDEXES; *INDUSTRY; *MEASUREMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 52P. PB82-241050; PRICE CODE: PC E04/MF E04

ABSTRACT: THE GLOSSARY IS DIVIDED INTO FIVE PARTS, VIZ. CONTROL, COMPUTERS, WATER TREATMENT, GENERAL ENGINEERING, AND ADMINISTRATION, AND EACH DEFINITION HAS BEEN GIVEN A NUMBER FOR EASE OF REFERENCE. WHERE A TERM HAS REQUIRED DEFINITION IN MORE THAN ONE PART THIS IS PROVIDED. THE INDEX ALSO PROVIDED ENABLES A PARTICULAR TERM TO BE QUICKLY LOCATED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008525

PUBLICATION DATE: JAN 82

TITLE: A MULTIOBJECTIVE BRANCH-AND-BOUND METHOD FOR PLANNING WASTEWATER AND RESIDUAL MANAGEMENT SYSTEMS.

PERSONAL AUTHOR: NAKAMURA, MASAHISA; AND OTHERS

DESCRIPTOR: *FACILITIES; *MANAGEMENT; *MANAGEMENT TECHNIQUES; *PLANNING; *PLANNING TECHNIQUES; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 120P. PB82-243643; PRICE CODE: PC A06/MF A01

ABSTRACT: A MULTI-OBJECTIVE BRANCH-AND-BOUND (BOB) ALGORITHM METHOD IS PROPOSED FOR USE IN ANALYZING MULTI-OBJECTIVE FIXED-CHARGE NETWORK-FLOW PROBLEMS COMMONLY FOUND IN WATER RESOURCES PLANNING SITUATIONS. A MULTI-OBJECTIVE IMPUTED VALUE ANALYSIS IS ALSO PROPOSED, WHICH MAKES USE OF THE BOB TREE-STRUCTURE AND ALLOWS COMPARISON OF THE IMPORTANCE OF FACILITIES IN THE NETWORK. THE IMPUTED VALUES OBTAINED FOR A GIVEN PROBLEM PROVIDE INFORMATION DIFFICULT TO OBTAIN EFFICIENTLY USING CONVENTIONAL MATHEMATICAL OPTIMIZATION TECHNIQUES. THE METHOD IS CAPABLE OF SYSTEMATICALLY AND EFFICIENTLY IDENTIFYING A SET OF GOOD PLANNING ALTERNATIVES. THE METHOD WAS APPLIED TO TWO HYPOTHETICAL EXAMPLE PROBLEMS DEALING WITH REGIONAL WASTEWATER AND RESIDUAL MANAGEMENT SYSTEMS TO DEMONSTRATE ITS POTENTIAL USEFULNESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008526

PUBLICATION DATE: MAY 82

TITLE: PILOT PLANT STUDIES - FROM STUDY PLANNING TO PROJECT IMPLEMENTATION.
PERSONAL AUTHOR: LOGSDON, GARY S.

DESCRIPTOR: *COSTS; *DATA COLLECTION; *FACILITIES; *EQUIPMENT; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *PILOT PLANT STUDIES; *RESEARCH METHODOLOGY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 10P. PB82-246844; PRICE CODE: PC A02/MF A01

ABSTRACT: BEFORE MAJOR WATER TREATMENT FACILITIES ARE DESIGNED OR BUILT, PILOT PLANT STUDIES ARE OFTEN CONDUCTED. THESE STUDIES NEED TO BE PLANNED AND CARRIED OUT PROPERLY IF THEY ARE TO PROVIDE THE DESIRED BENEFITS. PILOT PLANT STUDIES MAY BE CONDUCTED TO EVALUATE TREATMENT OR OPERATING ALTERNATIVES, OR TO EVALUATE THEORIES OR CONCEPTS OF OPERATION AND TREATMENT. DATA NEEDS FOR PILOT STUDIES CAN INCLUDE WATER QUALITY DATA AND COST DATA. AN APPROPRIATE RANGE OF CONDITIONS, INCLUDING EXTREMES THAT MAY BE EXPECTED, SHOULD BE EVALUATED. EQUIPMENT USED IN PILOT PLANTS SHOULD BE OF AN APPROPRIATE DESIGN, SUITABLE FOR SCALE-UP AND REASONABLE TO OPERATE. DATA COLLECTION SHOULD NOT BE EXCESSIVE, BUT DOCUMENTATION OF METHODS AND RESULTS MUST BE ADEQUATE. QUALITY CONTROL AND QUALITY ASSURANCE ARE VERY IMPORTANT. DATA FROM THE PROJECT SHOULD BE REVIEWED FREQUENTLY TO ASCERTAIN THAT THE STUDY IS ACCOMPLISHING THE DESIRED GOALS. AFTER PILOT OPERATIONS ARE COMPLETED, FINAL ANALYSIS OF DATA AND PREPARATION OF A CLEAR, UNDERSTANDABLE REPORT ARE THE CONCLUDING TASKS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008527

PUBLICATION DATE: MAY 82

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS FOR THE IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY. VOLUME VI.

PERSONAL AUTHOR: DULANEY, EDWARD L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRY; *IRON INDUSTRY; *PRETREATMENT; *REGULATIONS; *STANDARDS; *STEEL INDUSTRY; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 586P. PB82-240474; PRICE CODE: PC A25/MF A01

ABSTRACT: VOLUME VI OF SIX VOLUME SET WHICH PRESENTS DATA RATIONALE AND TECHNICAL ASPECTS OF THE FINAL EFFLUENT LIMITATIONS AND STANDARDS FOR THE IRON AND STEEL INDUSTRY PUBLISHED IN THE FEDERAL REGISTER ON MAY 27, 1982 (47 FR 23258-317). VOLUME I DESCRIBES THE GENERAL METHODOGY AND ISSUES WHEREAS THE REMAINING VOLUMES CONTAIN SPECIFIC SUBCATEGORY REPORTS. VOLUME VI PERTAINS TO THE COLD FORMING, ALKALINE CLEANING AND HOT COATING SUBCATEGORIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008528

PUBLICATION DATE: 82

TITLE: ANALYSIS OF TRACE SUBSTANCES IN AQUEOUS EFFLUENTS FROM PETROLEUM REFINERIES.

PERSONAL AUTHOR: PAULUIS, C.D.A; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EFFLUENTS; *METALS; *OIL INDUSTRY; *ORGANIC SUBSTANCES; *RESEARCH REPORTS; *SAMPLING; *TRACE SUBSTANCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 50P. PB82-240896; PRICE CODE: PC A03/MF A01

ABSTRACT: THE REPORT IS DESIGNED TO GIVE GUIDANCE TO THOSE WITHIN THE OIL REFINING INDUSTRY WHO ARE CONCERNED WITH THE DETERMINATION OF CERTAIN SUBSTANCES WHICH MAY BE PRESENT AT VERY LOW LEVELS IN AQUEOUS EFFLUENTS DISCHARGED BY THE INDUSTRY. THE IMPORTANCE OF AN OVERALL STRATEGY TO SUCH ANALYSES IS EMPHASIZED, INCLUDING THE ADOPTION OF APPROPRIATE SAMPLING METHODS. SEPARATE CHAPTERS ARE CONCERNED WITH THE DETERMINATION OF ORGANIC SUBSTANCES, METALS AND ANIONS. IN EACH AREA PUBLISHED PROCEDURES ARE RECOMMENDED INVOLVING IDENTIFICATION OF THE SUBSTANCE ANALYSED, WHEREVER POSSIBLE. IT IS POINTED OUT THAT ANALYSES

OF THIS NATURE ARE EXPENSIVE AND TIME CONSUMING AND THAT POOR REPRODUCIBILITY OF RESULTS MAY BE OBSERVED. THESE PROCEDURES, PARTICULARYLY THOSE FOR TRACE ORGANIC SUBSTANCES, ARE NOT SUITABLE FOR ROUTINE MONITORING OF EFFLUENTS OR FOR USE IN NORMAL REFINERY LABORATORIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008529

PUBLICATION DATE: MAY 82

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS FOR THE IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY. VOLUME I.

PERSONAL AUTHOR: DULANEY, EDWARD L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRY; *IRON INDUSTRY; *PRETREATMENT; *REGULATIONS; *STANDARDS; *STEEL INDUSTRY; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 591P. PB82-240425; PRICE CODE: PC A25/MF A01

ABSTRACT: VOLUME I OF SIX VOLUME SET WHICH PRESENTS DATA RATIONALE AND TECHNICAL ASPECTS OF THE FINAL EFFLUENT LIMITATIONS AND STANDARDS FOR THE IRON AND STEEL INDUSTRY PUBLISHED IN THE FEDERAL REGISTER ON MAY 27, 1982 (47 FR 23258-317). VOLUME I DESCRIBES THE GENERAL METHODOLOGY AND ISSUES WHEREAS THE REMAINING VOLUMES CONTAIN SPECIFIC SUBCATEGORY REPORTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008530

PUBLICATION DATE: MAY 82

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS FOR THE IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY. VOLUME II.

PERSONAL AUTHOR: DULANEY, EDWARD L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRY; *IRON INDUSTRY; *PRETREATMENT; *REGULATIONS; *STANDARDS; *STEEL INDUSTRY; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 434P. PB82-240433; PRICE CODE: PC A19/MF A01

ABSTRACT: VOLUME II OF SIX VOLUME SET WHICH PRESENTS DATA RATIONALE AND TECHNICAL ASPECTS OF THE FINAL EFFLUENT LIMITATIONS AND STANDARDS FOR THE IRON AND STEEL INDUSTRY PUBLISHED IN THE FEDERAL REGISTER ON MAY 27, 1982 (47 FR

23258-317). VOLUME I DESCRIBES THE GENERAL METHODOLOGY AND ISSUES WHEREAS THE REMAINING VOLUMES CONTAIN SPECIFIC SUBCATEGORY REPORTS. VOLUME II PERTAINS TO THE COKE MAKING, SINTERING AND IRON MAKING SUBCATEGORIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008531

PUBLICATION DATE: MAY 82

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS FOR THE IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY. VOLUME III.

PERSONAL AUTHOR: DULANEY, EDWARD L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRY; *IRON INDUSTRY; *PRETREATMENT; *REGULATIONS; *STANDARDS; *STEEL INDUSTRY; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 471P. PB82-240441; PRICE CODE: PC A20/MF A01

ABSTRACT: VOLUME III OF SIX VOLUME SET WHICH PRESENTS DATA RATIONALE AND TECHNICAL ASPECTS OF THE FINAL EFFLUENT LIMITATIONS AND STANDARDS FOR THE IRON AND STEEL INDUSTRY PUBLISHED IN THE FEDERAL REGISTER ON MAY 27, 1982 (47 FR 23258-317). VOLUME I DESCRIBES THE GENERAL METHODOLOGY AND ISSUES WHEREAS THE REMAINING VOLUMES CONTAIN SPECIFIC SUBCATEGORY REPORTS. VOLUME III PERTAINS TO THE STEEL MAKING, VACUUM DEGASSING AND CONTINUOUS CASTING SUBCATEGORIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008532

PUBLICATION DATE: MAY 82

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS FOR THE IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY. VOLUME IV.

PERSONAL AUTHOR: DULANEY, EDWARD L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRY; *IRON INDUSTRY; *PRETREATMENT; *REGULATIONS; *STANDARDS; *STEEL INDUSTRY; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 367P. PB82-240458; PRICE CODE: PC A16/MF A01

ABSTRACT: VOLUME IV OF SIX VOLUME SET WHICH PRESENTS DATA RATIONALE AND TECHNICAL ASPECTS OF THE FINAL EFFLUENT LIMITATIONS AND STANDARDS FOR THE IRON AND STEEL INDUSTRY PUBLISHED IN THE FEDERAL REGISTER ON MAY 27, 1982. VOLUME IV PERTAINS TO THE HOT FORMING SUBCATEGORY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008533

PUBLICATION DATE: DEC 82

TITLE: PHASING OUT THE FEDERAL CONSTRUCTION GRANTS PROGRAM: A SEQUEL TO "FUNDING NATIONAL WATER POLLUTION CONTROL PROGRAMS".

DESCRIPTOR: *CONSTRUCTION; *CONSTRUCTION GRANTS; *FEDERAL ROLE; *FUNDING; *FEDERAL PROGRAMS; *FACILITIES; *PLANNING; *PROPOSALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1539-40P.

ABSTRACT: PROPOSED IS A FEDERAL 10-YEAR, $19.4 BILLION PROGRAM TO FINISH THE EXISTING FEDERAL CONSTRUCTION GRANTS PROGRAM. THE PROPOSED PROGRAM WOULD PROVIDE A TRANSITION WHILE ALLOWING FOR THE DEVELOPMENT OF ALTERNATIVE FINANCING SYSTEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008534

PUBLICATION DATE: DEC 82

TITLE: BIOLOGICAL TREATMENT OF ODOROUS AIR.

PERSONAL AUTHOR: POMEROY, RICHARD D.

DESCRIPTOR: *AIR POLLUTION; *BIOLOGICAL TREATMENT; *ODORS; *ODOR CONTROL; *POLLUTION; *POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1541-45P.

ABSTRACT: DESCRIBED IS BIOLOGICAL TREATMENT OF ODOROUS AIR. BIOLOGICAL DEODORIZATION IS BECOMING POPULAR, AND CAN BE DESIGNED FOR NEARLY TOTAL REMOVAL OF ODORS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008535

PUBLICATION DATE: DEC 82

TITLE: ATMOSPHERIC RELEASE OF CHLORINATED ORGANIC COMPOUNDS FROM THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: LURKER, PETER A.; AND OTHERS

DESCRIPTOR: *AERATION BASINS; *CHLORINATED ORGANIC COMPOUNDS; *ACTIVATED SLUDGE PROCESS; *AIR POLLUTION; *OPERATIONS (WASTEWATER); *RESEARCH; *SAFETY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1566-73P.

ABSTRACT: VOLATILE COMPOUNDS CAN BE RELEASED INTO THE ATMOSPHERE FROM WASTEWATER DURING COLLECTION AND TREATMENT. A SUBSTANTIAL AMOUNT OF CHLORINATED HYDROCARBONS MAY BE EMITTED BY AIR STRIPPING FROM THE AERATION BASINS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008536

PUBLICATION DATE: DEC 82

TITLE: FILTRATION OF PRIMARY EFFLUENT.

PERSONAL AUTHOR: MATSUMOTO, MARK R.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *FILTRATION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PILOT STUDIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1581-91P.

ABSTRACT: PULSED-BED FILTERS CAN BE USED TO INCREASE THE CAPACITY OR UPGRADE THE PERFORMANCE OF EXISTING PRIMARY PLANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008537

PUBLICATION DATE: DEC 82

TITLE: MONITORING WATER QUALITY PARAMETERS FROM MUNICIPAL WATER INTAKES.

PERSONAL AUTHOR: KUBUS, JAMES J.; EGLOFF, DAVID A.

DESCRIPTOR: *GREAT LAKES; *LAKE ERIE; *OPERATIONS (WATER); *PREDICTION; *RESEARCH; *WATER INTAKE; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 1592-98P.

ABSTRACT: THIS STUDY WAS DESIGNED TO ASSESS WHETHER WATER QUALITY CHANGES BY PASSAGE THROUGH MUNICIPAL WATER INTAKE SYSTEMS ARE SUFFICIENTLY CONSTANT TO PERMIT A RELIABLE ESTIMATION OF LAKE VALUES FROM PLANT VALUES. THE STUDY ASSESSED A NUMBER OF VARIABLES AND DISCUSSES THE RELATIONSHIPS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008538

PUBLICATION DATE: DEC 82

TITLE: ENTEROCOCCI AND OTHER MICROBIAL INDICATORS IN MUNICIPAL WASTEWATER EFFLUENTS.

PERSONAL AUTHOR: MIESCIER, JOHN J.; CABELLI, VICTOR J.

DESCRIPTOR: *BACTERIA; *ENTEROCOCCI; *BIOLOGICAL INDICATORS; *INDICATOR ORGANISMS; *MICROBIOLOGY; *PATHOGENS; *RESEARCH; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER POLLUTION

DESCRIPTIVE NOTE: 1599-1606P.

ABSTRACT: THIS STUDY WAS CONDUCTED TO IDENTIFY INDICATORS OF FECAL CONTAMINATION. ENTEROCOCCAL DENSITIES VARIED LEAST DURING ALL STAGES OF TREATMENT AND WERE JUDGED THE BEST INDICATORS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008539

PUBLICATION DATE: DEC 82

TITLE: USE OF HYDROCYCLONES TO TREAT SEAFOOD-PROCESSING WASTEWATERS.

PERSONAL AUTHOR: JOHNSON, RONALD A; LINDLEY, KERRY L.

DESCRIPTOR: *EFFLUENTS; *EQUIPMENT; *HYDROCYCLONES; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *RESEARCH; *SUSPENDED SOLIDS; *SEAFOOD INDUSTRY; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1607-12P.

ABSTRACT: DESCRIBED IS THE USE OF HYDROCYCLONES TO REMOVE SUSPENDED SOLIDS FROM SEAFOOD PROCESSING WASTES. EFFLUENTS SATISFIED SUSPENDED SOLIDS STANDARDS, AND BYPRODUCT RECOVERY MAY PARTIALLY OFFSET TREATMENT COSTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N12

IRIS ACCESSION NUMBER: EW008540

PUBLICATION DATE: DEC 82

TITLE: BORDER TOWNS JOIN FORCES ACROSS THE LINE IN A WASTEWATER TREATMENT VENTURE.

PERSONAL AUTHOR: CUSTAFSON, GEORGE D.; MORIN, WILFRID

DESCRIPTOR: *DESIGN; *FACILITIES; *INTERNATIONAL AGREEMENTS; *INTERNATIONAL PROJECTS; *OPERATIONS (WASTEWATER); *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 14-15P.
ABSTRACT: DESCRIBED IS A JOINT VENTURE BY TWO BORDER TOWNS, ONE IN THE U.S. AND ONE IN CANADA, TO DEVELOP WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008541

PUBLICATION DATE: DEC 82

TITLE: SIMPLE COMPUTER SYSTEM IMPROVES O&M EFFICIENCY.

PERSONAL AUTHOR: MATTICE, TERRY

DESCRIPTOR: *ADMINISTRATION; *COMPUTERS; *COMPUTER APPLICATIONS; *INSTRUMENTATION; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *PLANNING; *SUPERVISION; *TROUBLESHOOTING; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 15P.

ABSTRACT: DESCRIBED IS A SIMPLE, COMPUTER-ASSISTED MANAGEMENT INFORMATION SYSTEM THAT HAS BEEN DEVELOPED BY A NEW JERSEY CONSULTING FIRM TO ASSIST WATER AND WASTEWATER TREATMENT MANAGEMENT AND ENGINEERING OPERATIONS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008542

PUBLICATION DATE: DEC 82

TITLE: DEDICATED MEETINGS CHARACTERIZE MANAGEMENT'S STYLE.

DESCRIPTOR: *ADMINISTRATION; *MANAGEMENT; *MANAGEMENT STYLE; *MEETINGS; *UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16, 42P.

ABSTRACT: DESCRIBED ARE THE MEETINGS AND MANAGEMENT STYLE OF THE MIAMI-DADE WATER AND SEWER AUTHORITY (FLORIDA).

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008543

PUBLICATION DATE: DEC 82

TITLE: MOTHER NATURE AS SLUDGE THICKENER.

PERSONAL AUTHOR: CANFIELD, CARL; SUTPHEN, RUSSEL L.

DESCRIPTOR: *DESIGN; *FILTRATION; *ECONOMICS; *FACILITIES; *LAGOONS; *OPERATIONS (WATER); *SLUDGE; *SLUDGE DISPOSAL; *WATER SUPPLY; *WATER TREATMENT
DESCRIPTIVE NOTE: 22-24P.

ABSTRACT: DESCRIBED IS A PROCESS USING DIRECT FILTRATION AND AN UNCONVENTIONAL BACK WASH THAT RELIES ON NATURAL FREEZING AND THAWING CYCLES TO DEWATER ALUM SLUDGE.

AVAILABILITY: WATER ENGINEERING AND MANAGEMNT, V129 N13

IRIS ACCESSION NUMBER: EW008544

PUBLICATION DATE: DEC 82

TITLE: DEALING WITH THAT NEVER-ENDING SLUDGE OUTPUT.

PERSONAL AUTHOR: CHRISTENSEN, C. LEE

DESCRIPTOR: *LAND USE; *LIME STABILIZATION; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE DISPOSAL; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 25-26P.

ABSTRACT: WASTEWATER TREATMENT PLANTS PRODUCE SLUDGE AT A RELATIVELY CONSTANT RATE, BUT MEANS FOR ITS DISPOSAL ARE NOT ALWAYS AVAILABLE. LIME STABILIZATION FOLLOWED BY LAND UTILIZATION CAN SOLVE THE PROBLEM.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008545

PUBLICATION DATE: DEC 82

TITLE: TO SAVE ENERGY DOLLARS, START WITH A SOUND AUDIT.

PERSONAL AUTHOR: MICHELS, CARL J.

DESCRIPTOR: *AUDITS; *COSTS; *ECONOMICS; *ENERGY; *ENERGY CONSERVATION; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 27-29P.

ABSTRACT: A COMPREHENSIVE ENERGY AUDIT IN A WASTEWATER TREATMENT PLANT INVOLVES SUBSTANTIAL DATA AND STUDY, HOWEVER SAVINGS IN OPERATION AND MAINTENANCE CAN BE ACHIEVED. AN EXAMPLE OF AN AUDIT IS DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008546

PUBLICATION DATE: DEC 82

TITLE: WATER PLANT GROWS BIGGER, CUTS ELECTRIC BILL.

DESCRIPTOR: *COSTS; *EQUIPMENT; *FACILITIES; *MIXING; *MIXERS; *MAINTENANCE; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 29-30P.

ABSTRACT: AN ARIZONA WATER TREATMENT PLANT WAS ALMOST DOUBLED IN SIZE; THE NEW MOTIONLESS MIXER INSTALLED TO BLEND CHEMICALS INTO THE WATER STREAM PROVIDED SUBSTANTIAL SAVINGS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008547

PUBLICATION DATE: DEC 82

TITLE: CENTRIFUGAL PUMP BASICS.

PERSONAL AUTHOR: FRENCH, WILLIAM W

DESCRIPTOR: *CENTRIFUGAL PUMPS; *DESIGN; *EQUIPMENT; *MAINTENANCE; *OPERATIONS; *PUMPS; *WATER PUMPS

DESCRIPTIVE NOTE: 33-35P.

ABSTRACT: ONE OF THE MOST COMMONLY FOUND ELEMENTS IN THE WATER/WASTEWATER INDUSTRY IS THE CENTRIFUGAL PUMP. THIS ARTICLE DESCRIBES HOW IT WORKS, HOW ITS BUILT, AND HOW IT SHOULD BE USED AND MAINTAINED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N13

IRIS ACCESSION NUMBER: EW008548

PUBLICATION DATE: DEC 82

TITLE: HOW TO BUILD SUPPORT FOR PUBLIC PROJECTS.

PERSONAL AUTHOR: GIBBS, C. V.; HANEY, CAMILLE

DESCRIPTOR: *FACILITIES; *LAND USE; *PLANNING; *PUBLIC PARTICIPATION; *PUBLIC WORKS; *PUBLIC PROJECTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 38-43P.

ABSTRACT: THIS ARTICLE PROVIDES A LOOK AT HOW MUNICIPAL AGENCIES HAVE GAINED PUBLIC ACCEPTANCE FOR SLUDGE MANAGMENT FACILITIES, ONE OF THE MOST DIFFICULT OF POLLUTION CONTROL OPERATIONS TO SITE.

AVAILABILITY: AMERICAN CITY AND COUNTY, V97 N12

IRIS ACCESSION NUMBER: EW008549

PUBLICATION DATE: NOV 82

TITLE: CHLORINATION SYSTEMS - FEEDING CHLORINE INTO WATER.

PERSONAL AUTHOR: WESORICK, JIM

DESCRIPTOR: *CHLORINE; *DISINFECTION; *OPERATIONS (WATER); *SAFETY; *WATER TREATMENT

DESCRIPTIVE NOTE: 1, 4P.

ABSTRACT: DESCRIBED IS A CHLORINATION SYSTEM AND THE HANDLING AND USE OF CHLORINE AND CHLORINE CYLINDERS IN THE TREATMENT OF WATER.

AVAILABILITY: OPFLOW, V8 N11

IRIS ACCESSION NUMBER: EW008550

PUBLICATION DATE: NOV 82

TITLE: KEEPING COOL WHEN CUSTOMERS COMPLAIN.

DESCRIPTOR: *CONSUMER COMPLAINTS; *CUSTOMER SERVICES; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WATER); *PUBLIC PARTICIPATION; *RECORDS; *WATER SUPPLY

DESCRIPTIVE NOTE: 3P.

ABSTRACT: DESCRIBED IS A PROCEDURE FOR HANDLING CONSUMER COMPLAINTS FROM WATER USERS. A CHECKLIST TO FOLLOW IS INCLUDED.

AVAILABILITY: OPFLOW, V8 N11

IRIS ACCESSION NUMBER: EW008551

PUBLICATION DATE: NOV 82

TITLE: SOLUTION-FEED VACUUM-TYPE CHLORINATION SYSTEMS.

DESCRIPTOR: *CHLORINATION; *DISINFECTION; *EQUIPMENT; *MAINTENANCE; *OPERATIONS (WATER); *SAFETY; *TROUBLE-SHOOTING; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 5P.

ABSTRACT: THIS ARTICLE PRESENTS SUGGESTED MAINTENANCE, PRACTICES, AND TROUBLESHOOTING FOR SOLUTION-FEED VACUUM-TYPE CHLORINATION SYSTEMS.

AVAILABILITY: OPFLOW, V8 N11

IRIS ACCESSION NUMBER: EW008552

PUBLICATION DATE: DEC 82

TITLE: CORRECTING COMMON DISCUSSION LEADER MISTAKES.

PERSONAL AUTHOR: RARDIN, RICH

DESCRIPTOR: *DISCUSSION; *INSTRUCTION; *SKILL DEVELOPMENT;

*TRAINING; *VERBAL INTERACTION

DESCRIPTIVE NOTE: 14-15P.

ABSTRACT: DESCRIBED ARE COMMON MISTAKES MADE BY DISCUSSION LEADERS AND SUGGESTIONS FOR CORRECTING THEM.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N12

IRIS ACCESSION NUMBER: EW008553

PUBLICATION DATE: DEC 82

TITLE: MICROCOMPUTERS AND ADULT LEARNING.

PERSONAL AUTHOR: MEIERHENRY, W. C.

DESCRIPTOR: *ADULT EDUCATION; *COMPUTER APPLICATIONS; *INSTRUCTION; *LEARNING; *MICROCOMPUTERS; *PHILOSOPHY; *POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 58-66P.

ABSTRACT: THIS ARTICLE DISCUSSES SOME PREVAILING PHILOSOPHIES OF ADULT EDUCATION, THE DEVELOPMENT AND USE OF MICROCOMPUTERS, AND IMPLICATIONS OF USE OF THE MICROCOMPUTER FOR ADULT EDUCATION.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N12

IRIS ACCESSION NUMBER: EW008554

PUBLICATION DATE: DEC 82

TITLE: THE CREATIVE BRAIN II: A REVISIT WITH NED HERRMANN.

PERSONAL AUTHOR: GOROVITZ, ELIZABETH SHEY, ED.

DESCRIPTOR: *BRAIN; *CREATIVITY; *INTERVIEWS; *HERMANN BRAIN DOMINANCE; *INSTRUCTION; *LEARNING; *LEARNING THEORIES; *MEASUREMENT; *PSYCHOLOGY; *TEACHING

DESCRIPTIVE NOTE: 74-88P.

ABSTRACT: PRESENTED IS AN INTERVIEW OF BRAIN RESEARCH SPECIALIST NED HERRMANN REGARDING HIS LATEST THEORIES ON "APPLIED CREATIVITY" AND "WHOLE BRAIN LEARNING."

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N12

IRIS ACCESSION NUMBER: EW008555

PUBLICATION DATE: DEC 82

TITLE: DO YOUR QUALITY CIRCLE LEADERS NEED MORE TRAINING?

PERSONAL AUTHOR: METZ, EDMUND J.

DESCRIPTOR: *EDUCATIONAL NEEDS; *LEADERS; *LEADERSHIP; *PERFORMANCE EVALUATION; *QUALITY CIRCLES; *POST SECONDARY EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 10B-12P.

ABSTRACT: DISCUSSED ARE QUALITY CIRCLES, HOW TO START QUALITY CIRCLES, HOW TO ASSESS TRAINING NEEDS FOR LEADERS, AND IMPLEMENTING TRAINING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N12

IRIS ACCESSION NUMBER: EW008556

PUBLICATION DATE: DEC 82

TITLE: NEW PIPELINE SUPPLIES THE KEYS.

DESCRIPTOR: *CASE STUDIES; *CONSTRUCTION; *DRINKING WATER; *IRON PIPE; *PIPES; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER PIPES

DESCRIPTIVE NOTE: 30-31P.

ABSTRACT: DESCRIBED IS THE INSTALLATION OF ALMOST 60 MILES OF DUCTILE IRON PIPE TO PROVIDE A WATER SUPPLY FOR KEY WEST, FLORIDA.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008557

PUBLICATION DATE: DEC 82

TITLE: ON-SITE DETENTION - THE DESIGN PROCESS.

PERSONAL AUTHOR: MASON, JOHN M., JR.; RHOMBERG, EDWARD J.

DESCRIPTOR: *DESIGN; *CONSTRUCTION; *FACILITIES; *LAND USE; *NATURAL RESOURCES; *ONSITE DETENTION; *PLANNING; *SURFACE RUNOFF; *WATER RESOURCES; *WATER STORAGE; *WATER SUPPLY

DESCRIPTIVE NOTE: 34-36P.

ABSTRACT: PROVIDED IS A REVIEW OF THE BASIC DESIGN COMPONENTS AND FUNDAMENTAL DESIGN PROCEDURES FOR STORMWATER RUNOFF DETENTION FACILITIES.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008558

PUBLICATION DATE: DEC 82

TITLE: SUPERBUGS: BACTERIA FOR WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *BACTERIA; *BACTERIAL CULTURES; *BIOLOGICAL TREATMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 37-38P.

ABSTRACT: THIS ARTICLE PRESENTS AN OVERVIEW OF THE USE OF MUTANT BACTERIA TO IMPROVE THE OPERATION OF WASTEWATER TREATMENT PLANTS.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008559

PUBLICATION DATE: DEC 82

TITLE: HALTING CREEK POLLUTION.

PERSONAL AUTHOR: DITTMER, ERIC

DESCRIPTOR: *CREEKS; *MONITORING; *OREGON; *POLLUTION; *POLLUTION CONTROL; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 39-40P.

ABSTRACT: SUBSTANTIAL WORK WAS NEEDED TO TRACE ALL SOURCES OF POLLUTION IN A SMALL CREEK RUNNING THROUGH A PARK.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008560

PUBLICATION DATE: DEC 82

TITLE: COMPUTER-BASED TELEMETRY MONITORS WATER USE.

DESCRIPTOR: *AUTOMATION; *COMPUTER APPLICATIONS; *INSTRUMENTATION; *MONITORING; *OPERATIONS (WATER); *RECORDS; *TELEMETRY; *WATER USE; *WATER SUPPLY

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: A COMPUTER-BASED TELEMETRY SYSTEM MONITORS WATER USE. NINE RESERVOIRS AND SIX PUMPING STATIONS ARE MONITORED AND CONTROLLED BY THE SYSTEM, WHICH ALSO GENERATES RECORDS AND IS USED IN PREDICTING WATER REQUIREMENTS.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008561

PUBLICATION DATE: DEC 82

TITLE: TUCSON VERIFIES PIPE'S DURABILITY.

PERSONAL AUTHOR: JOHNSON, DAVID; SCHLADWEILER, JON

DESCRIPTOR: *ARIZONA; *CASE STUDIES; *CONCRETE PIPES; *PERFORMANCE EVALUATION; *PIPES; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 42P.

ABSTRACT: DESCRIBED IS THE TUSCON CONCRETE SEWER SYSTEM. TESTS SHOW THE SYSTEM, THOUGH NEARLY 60 YEARS OLD IS STILL FIT FOR CONTINUING SERVICE.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008562

PUBLICATION DATE: DEC 82

TITLE: EFFECTIVE START-UP TRAINING FOR WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: METCALF, RICHARD R.

DESCRIPTOR: *FACILITIES; *INSTRUCTION; *OPERATIONS (WASTEWATER); *PERFORMANC EVALUATION; *START-UP; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 49-50P.

ABSTRACT: A WELL-PLANNED TRAINING PERIOD AND ASSURANCE THAT SUPPLIERS WILL PROVIDE ADEQUATE TRAINING ARE KEYS TO SUCCESSFUL START-UP OF WASTEWATER TREATMENT PLANTS.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008563

PUBLICATION DATE: DEC 82

TITLE: WASTEWATER SYSTEM IMPROVEMENTS HELP DALLAS MEET FUTURE NEEDS.

PERSONAL AUTHOR: BUCHHOLZ, WILLIAM B.; ROACH, PAUL A.

DESCRIPTOR: *DESIGN; *FACILITIES; *PLANNING; *STUDIES; *TEXAS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 52-53P.

ABSTRACT: DESCRIBED ARE STUDIES AND IMPROVEMENTS DALLAS, TEXAS HAS MADE TO ITS WASTEWATER SYSTEM TO HELP MEET FUTURE NEEDS.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008564

PUBLICATION DATE: DEC 82

TITLE: ALUMINUM DOMES CAP WATER TANKS.

DESCRIPTOR: *ALUMINUM; *CONSTRUCTION; *DESIGN; *FACILITIES; *METALS; *TANKS; *WATER TANKS; *WATER STORAGE; *WATER SUPPLY

DESCRIPTIVE NOTE: 60P.

ABSTRACT: DESCRIBED IS THE USE OF CLEAR-SPAN, ALL-ALUMINUM DOMES USED TO COVER THREE TANKS. THE LARGEST TANK HAS A DIAMETER OF 110 FEET.

AVAILABILITY: PUBLIC WORKS, V113 N12

IRIS ACCESSION NUMBER: EW008565

PUBLICATION DATE: WIN 82

TITLE: OCEAN DUMPING.

PERSONAL AUTHOR: FARRINGTON, JOHN W.; AND OTHERS

DESCRIPTOR: ECONOMICS; *ECOLOGY; *ENVIRONMENTAL IMPACTS; *INTERNATIONAL PROBLEMS; *MARINE BIOLOGY; *NATURAL RESOURCES; *OCEANOGRAPHY; *OCEAN DUMPING; *RESEARCH; *WASTE DISPOSAL; *WATER QUALITY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 39-50P.

ABSTRACT: THIS ARTICLE CONSIDERS THE PROBLEM OF OCEAN DUMPING OF WASTES, WHAT WE KNOW ABOUT OCEAN DUMPING, AND THE NEED FOR KNOWLEDGE ABOUT THE EFFECT OF OCEAN DUMPING ON THE OCEANS.

AVAILABILITY: OCEANUS, V25 N4

IRIS ACCESSION NUMBER: EW008566

PUBLICATION DATE: NOV 82

TITLE: TRAINING MAKES ENFORCEMENT EASIER.

PERSONAL AUTHOR: ERICKSON, GENE A.; HERMAN, MICHAEL W.

DESCRIPTOR: POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *TRAINING; OBJECTIVES; *WASTEWATER; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 24-26P.

ABSTRACT: TO AID IN PERSONNEL TRAINING AND AS A COMPLEMENT TO ITS ENFORCEMENT PROGRAM, THE MINNESOTA POLLUTION CONTROL AGENCY IMPLEMENTED AN OPERATOR ASSISTANCE PROGRAM IN JUNE 1976. ITS PRINCIPLE OBJECTIVE WAS TO TRAIN OPERATORS IN PROCESS CONTROL TO IMPROVE THEIR SKILLS AND ENHANCE THEIR LONG-TERM ABILITY TO PRODUCE HIGH QUALITY EFFLUENT.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N12

IRIS ACCESSION NUMBER: EW008567

PUBLICATION DATE: NOV 82

TITLE: LADDERS TO SUCCESS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: ADMINISTRATION; *CAREER LADDERS; EMPLOYEE ATTITUDES; *EMPLOYER EMPLOYEE RELATIONSHIPS; HUMAN RESOURCES; *INCENTIVES; OPERATING EXPENSES; POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; PERFORMANCE FACTORS; WORK ATTITUDES; *WASTEWATER; WASTEWATER TREATMENT; WISCONSIN

DESCRIPTIVE NOTE: 26-27P.

ABSTRACT: THE METROPOLITAN SEWERAGE DISTRICT (GREEN BAY, WISCONSIN) HAS DEVELOPED A REPUTATION AS A WELL-ENGINEERED, COMPETENTLY MANAGED, AND EFFICIENTLY OPERATED FACILITY. DESCRIBES MANAGEMENT DEVICES TO FOSTER POSITIVE EMPLOYEE ATTITUDES (HUMAN RESOURCES DEVELOPMENT PLAN, CAREER LADDERS), MONEY-WISE APPROACHES USED BY THE FACILITY, AND NEW DEVELOPMENTS SUCH AS COMPUTERIZATION OF INTERCEPTOR INVENTORY DATA.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N12

IRIS ACCESSION NUMBER: EW008569

PUBLICATION DATE: NOV 82

TITLE: SOLUTION TO ODOR PROBLEM GIVES UNEXPECTED SAVINGS.

PERSONAL AUTHOR: RUDOLPH, DONALD J.

DESCRIPTOR: *AIR POLLUTION; *COSTS; *HYDROGEN SULFIDE; *NEW YORK; *ODORS; *OPERATIONS (WASTEWATER); *POTASSIUM PERMANGANATE; *SAFETY; *SLUDGE; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: DESCRIBED IS A PROJECT IN NEW YORK THAT DEVELOPED A PROGRAM TO ELIMINATE ODORS IN THE WASTEWATER COLLECTION SYSTEM. POTASSIUM PERMANGANATE WAS USED TO REDUCE GASEOUS HYDROGEN SULFIDE AT SEVERAL SITES. POTASSIUM PERMANAGANATE WAS ALSO USED FOR HYDROGEN SULFIDE TREATMENT IN SLUDGE HANDLING; THIS TREATMENT HAS ALSO AIDED DEWATERING AND HAS REDUCED PROCESSING COSTS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N12

IRIS ACCESSION NUMBER: EW008570

PUBLICATION DATE: NOV 82

TITLE: ESTIMATING WASTE ACTIVATED SLUDGE.

PERSONAL AUTHOR: RICH, LINVIL G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACTIVATED SLUDGE; *DESIGN; *FACILITIES; *OPERATIONS (WASTEWATER); *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 35P.

ABSTRACT: DESCRIBED IS A PROCEDURE FOR ESTIMATING WASTE ACTIVATED SLUDGE. A KNOWLEDGE OF THE AMOUNT OF WASTE ACTIVATED SLUDGE IS FUNDAMENTAL TO THE DESIGN AND OPERATION OF WASTEWATER TREATMENT PLANTS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V129 N12

IRIS ACCESSION NUMBER: EW008571

PUBLICATION DATE: NOV 82

TITLE: PINPOINTING PIPE RUPTURES.

PERSONAL AUTHOR: DIVENOT, ANDRE

DESCRIPTOR: *COMPUTER APPLICATIONS; *LEAKS; *LEAK DETECTION; *MONITORING; *OPERATIONS (WATER); *PIPES; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 36-37P.

ABSTRACT: WITH A COMPUTER LINKED TO THE PIPING SYSTEM AND SENSORS PROPERLY LOCATED, IT'S POSSIBLE TO PINPOINT MAJOR WATER DISTRIBUTION BREAKS QUICKLY AND ACCURATELY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT, V11. N12

IRIS ACCESSION NUMBER: EW008572

PUBLICATION DATE: DEC 82

TITLE: CHANGES PROPOSED FOR WATER MANAGEMENT IN THE UNITED KINGDOM.

PERSONAL AUTHOR: ROWNTREE, SIR NORMAN

DESCRIPTOR: *ECONOMICS; *MANAGEMENT; *NATURAL RESOURCES; *POLICIES; *UNITED KINGDOM; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 14, 36P.

ABSTRACT: DESCRIBED ARE CHANGES PROPOSED FOR WATER MANAGEMENT IN THE UNITED KINGDOM. THE PRESENT SYSTEM AND POSSIBLE CHANGES ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V74 N12

IRIS ACCESSION NUMBER: EW008573

PUBLICATION DATE: DEC 82

TITLE: FACE TO FACE.

PERSONAL AUTHOR: GROFF, JIM

DESCRIPTOR: *ADMINISTRATION; *EPA; *ENGINEERING; *ENGINEERS; *INTERVIEWS; *MANPOWER NEEDS; *PERSONNEL; *PLANNING; *POLICIES; *PUBLIC PARTICIPATION; *REGULATIONS; *TRAINING

DESCRIPTIVE NOTE: 20-23, 30-34P.

ABSTRACT: PRESENTED IS AN INTERVIEW OF JOHN HERNANDEZ, JR., DEPUTY ADMINISTRATOR OF THE USEPA. TOPICS DISCUSSED INCLUDE ENGINEERS, ENGINEERING, USEPA, PUBLIC PARTICIPATION, AND REGULATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008574

PUBLICATION DATE: DEC 82

TITLE: RECENT DEVELOPMENTS IN WATER TREATMENT IN FRANCE.

PERSONAL AUTHOR: RAPINAT, MICHAEL

DESCRIPTOR: *ACTIVATED CARBON; *BIOLOGICAL PURIFICATION; *CARBON; *FRANCE; *FILTRATION; *ECONOMICS; *OPERATIONS (WATER); *OZONE; *POLLUTION; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 610-17P.

ABSTRACT: DESCRIBED ARE RECENT DEVELOPMENTS IN WATER TREATMENT IN FRANCE. GOOD RESULTS HAVE BEEN OBTAINED BY USING NATURAL BIOLOGICAL PURIFICATION IN CONJUNCTION WITH ACTIVATED CARBON. OZONE IS ALSO USED BEFORE FILTRATION, BEFORE ACTIVATED CARBON FILTRATION, AND AFTER CARBON FILTRATION. THE COST OF THESE TECHNIQUES IS ONLY ABOUT 6 PERCENT MORE THAN TRADITIONAL TECHNIQUES AND RESULTS IN REDUCED USE OF CHEMICAL REAGENTS AND IMPROVED TASTE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008575

PUBLICATION DATE: DEC 82

TITLE: A MODEL OF COSTS FOR TREATING DRINKING WATER.

PERSONAL AUTHOR: CLARK, ROBERT M.; DORSEY, PAUL

DESCRIPTOR: *CONSTRUCTION; *COSTS; *ECONOMICS; *FACILITIES; *MAINTENANCE; *MATHEMATICAL MODELS; *OPERATIONS (WATER);

*UNIT PROCESSES; *STATISTICS; *WATER TREATMENT

DESCRIPTIVE NOTE: 618-17P.

ABSTRACT: RESEARCH WAS UNDERTAKEN TO DEVELOP COST DATA ASSOCIATED WITH 99 UNIT PROCESSES FOR TREATING DRINKING WATER. THESE ESTIMATES WERE USED AS A BASIS FOR DEVELOPING A MODEL OF COSTS FOR TREATING DRINKING WATER. THE EQUATIONS AND SOME TYPICAL APPLICATIONS ARE PRESENTED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008576

PUBLICATION DATE: DEC 82

TITLE: OBTAINING AN ANALYTICAL GRASP OF WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: SIEDLER, MOSES

DESCRIPTOR: *AUDITS; *LEAKS; *PERFORMANCE EVALUATION; *PLANNING; *SURVEYS; *WATER AUDITS; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER USE

DESCRIPTIVE NOTE: 628-30P.

ABSTRACT: THOROUGH FIELD INVESTIGATIONS OF WATER DISTRIBUTION SYSTEMS ARE NECESSARY FOR EFFICIENT OPERATION AND FUTURE PLANNING. WATER AUDITS CAN ANALYZE LEAKAGE, ERRONEOUS METER REGISTRATION, AND OTHER PROBLEMS IN A DISTRIBUTION SYSTEM. SUCH INFORMATION IS ALSO NECESSARY BEFORE COST-EFFECTIVE PLANS FOR UPGRADING SYSTEMS CAN BE DEVELOPED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008577

PUBLICATION DATE: DEC 82

TITLE: DRINKING WATER AND LEGIONNAIRES' DISEASE.

PERSONAL AUTHOR: DUFOUR, ALFRED P.; JAKUBOWSKI, WALTER

DESCRIPTOR: *BUILDINGS; *DISEASES; *DETECTION; *DRINKING WATER; *LEGIONNAIRES' DISEASE; *PIPES; *PUBLIC HEALTH; *RECOMMENDATIONS; *RESERVOIRS; *WATER SUPPLY; *WATER TREATMENT; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 631-37P.

ABSTRACT: THE BACTERIUM THAT CAUSES LEGIONELLOSIS APPARENTLY THRIVES IN SOME WATER DISTRIBUTION SYSTEMS IN BUILDINGS. THIS ARTICLE DISCUSSES UP-TO-DATE INFORMATION ON CONTROL MEASURES, FORMS OF THE DISEASE, AND METHODS OF DETECTING THE PRESENCE OF THE BACTERIA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008578

PUBLICATION DATE: DEC 82

TITLE: EVALUATING POTENTIAL HEALTH RISKS OF CONSUMING REUSED WATER.

PERSONAL AUTHOR: NEAL, ROBERT A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *HEALTH EFFECTS; *CONTAMINANTS; *LABORATORY PROCEDURES; *PUBLIC HEALTH; *RESEARCH; *RECYCLING; *RISK ASSESSMENT; *WATER REUSE; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 638-41P.

ABSTRACT: THE POSSIBLE ADVERSE HEALTH EFFECTS CAUSED BY HUMAN CONSUMPTION OF REUSED WATER ARE SURVEYED, AND SUGGESTIONS FOR LABORATORY ANIMAL TESTS TO EVALUATE CHEMICAL CONSTITUENTS OF THE WATER ARE OUTLINED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008579

PUBLICATION DATE: DEC 82

TITLE: TOXICOLOGICAL PROBLEMS ASSOCIATED WITH ALTERNATIVE METHODS OF DISINFECTION.

PERSONAL AUTHOR: BULL, RICHARD J.

DESCRIPTOR: *CHLORINE; *BYPRODUCTS; *DISINFECTION; *DRINKING WATER; *HAZARD ASSESSMENT; *ORGANIC COMPOUNDS; *POTABLE WATER; *PUBLIC HEALTH; *RISK ASSESSMENT; *TOXIC SUBSTANCES; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 642-48P.

ABSTRACT: DISCUSSED ARE THE TOXICOLOGICAL HAZARDS ASSOCIATED WITH ALTERNATIVE MEANS OF DISINFECTING DRINKING WATER. EFFECTS OF DISINFECTANTS-CHLORINE, CHLORINE DIOXIDE, AND MONOCHLORAMINE-AND BY-PRODUCTS-CHLORITE, CHLORATE, TRIHALOMETHANES, AND HALOACETONITRILES-ARE CONSIDERED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008580

PUBLICATION DATE: DEC 82

TITLE: THE ROLE OF FILTRATION IN PREVENTING WATERBORNE DISEASE.

PERSONAL AUTHOR: LOGSDON, GARY S.; LIPPY, EDWIN C.
DESCRIPTOR: *DISEASES; *DISINFECTION; *DRINKING WATER; *FILTRATION; *MAINTENANCE; *OPERATIONS (WATER); *PUBLIC HEALTH; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 649-55P.

ABSTRACT: THE AUTHORS ATTRIBUTE RECENT OUTBREAKS OF WATERBORNE DISEASE TO THE LACK OF FILTRATION OR TO FAULTY OPERATION AND MAINTENANCE OF THE PROCESS. DATA ARE PRESENTED TO SHOW THAT VARIOUS FORMS OF FILTRATION REDUCE MICROBIAL POPULATIONS TO CONCENTRATIONS THAT ARE EASILY CONTROLLED BY DISINFECTION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008581

PUBLICATION DATE: DEC 82

TITLE: COMPARATIVE INACTIVATION OF SIX ENTEROVIRUSES BY OZONE.

PERSONAL AUTHOR: ENGLEBRECHT, R. S.; AND OTHERS

DESCRIPTOR: *DISEASES; *DISINFECTION; *ENTEROVIRUSES; *OZONE; *PUBLIC HEALTH; *RESEARCH; *PERFORMANCE EVALUATION; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 660-64P.

ABSTRACT: DISCUSSED ARE THE METHODS, PROCEDURES, AND RESULTS OF THE USE OF OZONE TO INACTIVATE SIX ENTEROVIRUSES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N12

IRIS ACCESSION NUMBER: EW008582

PUBLICATION DATE: MAY 82

TITLE: ABC UPDATE AS PRESENTED AT THE AWWA 1982 ANNUAL CONFERENCE & EXPOSITION.

PERSONAL AUTHOR: MOEHLMANN, STEPHEN E.

DESCRIPTOR: *ASSOCIATIONS; *ABC; *CERTIFICATION; *HISTORY; *OPERATORS (WATER); *OPERATORS (WASTEWATER); *TEST DEVELOPMENT; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 31P. PRICE: ABC - $1.00 PER DOCUMENT PLUS $0.10 PER PAGE. EPA-IRC - $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THE ASSOCIATION OF BOARDS OF CERTIFICATION FOR OPERATING PERSONNEL (ABC) IS AN ASSOCIATION OF CERTIFYING AUTHORITIES FOR WATER AND WASTEWATER PERSONNEL FROM THROUGHOUT THE UNITED STATES, CANADA, AND AUSTRALIA. THIS PAPER PROVIDES AN UPDATE ON RECENT ABC ACTIVITIES.
AVAILABILITY: ABC, P. O. BOX 2266, AMES, IA 50010 AND EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW008585

PUBLICATION DATE: APR 82

TITLE: HANDBOOK FOR IDENTIFICATION AND CORRECTION OF TYPICAL DESIGN DEFICIENCIES AT MUNICIPAL WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *DESIGN; EQUIPMENT; *ENGINEERING; *FACILITIES; *GUIDES; *HANDBOOKS; *MAINTENANCE; *OPERATIONS (WASTEWATER); POTW; *PERFORMANCE EVALUATION; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 421P.

ABSTRACT: THIS HANDBOOK DESCRIBES DESIGN DEFICIENCIES IN MUNICIPAL WASTEWATER TREATMENT PLANTS THAT CONTRIBUTE TO PERFORMANCE AND RELIABILITY PROBLEMS, POOR SAFETY PRACTICES, AND/OR DECREASED FLEXIBILITY OF PLANT PROCESS CONTROL. PROCEDURES ARE PRESENTED FOR CORRECTION OF THESE DEFICIENCES AT EXISTING FACILITIES AND DESIGN CONSIDERATIONS ARE PRESENTED TO PREVENT THEIR OCCURANCES IN NEW FACILITIES.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF RESEARCH AND DEVELOPMENT, MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW008586

PUBLICATION DATE: OCT 82

TITLE: PROCESS DESIGN MANUAL FOR DEWATERING MUNICIPAL WASTEWATER SLUDGES.

DESCRIPTOR: CASE STUDIES; COSTS; *DESIGN; *DEWATERING; FACILITIES; *GUIDES; *MANUALS; MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); PERFORMANCE EVALUATION; *PROCESS DESIGN; *SLUDGE; *SLUDGE DEWATERING; TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 221P.

ABSTRACT: THIS MANUAL PRESENTS A CRITICAL REVIEW OF MUNICIPAL WASTEWATER SLUDGE DEWATERING PROCESS TECHNOLOGY. PARTICULAR EMPHASIS IS GIVEN TO THE DEVELOPMENT OF A PROCEDURE FOR THE SELECTION AND DESIGN OF A DEWATERING PROCESS. INCLUDED IN THE MANUAL ARE DISCUSSIONS OF SLUDGE CHARACTERISTICS, DEWATERING PROCESS, THEIR PERFORMANCE CAPABILITIES AND OPERATIONAL VARIABLES, CHEMICAL CONDITIONING, COST AND ENERGY CONSIDERATIONS, AND CASE-STUDY INFORMATION. DEWATERING PROCESSES DISCUSSED ARE BASKET CENTRIFUGE, LOW G AND HIGH G SOLID BOWL CENTRIFUGES, BELT FILTER PRESS, VACUUM FILTER, FIXED VOLUME AND VARIABLE VOLUME RECESSED PLATE FILTER PRESSES, DRYING BED, SLUDGE

LAGOON, AND GRAVITY/LOW PRESSURE DEVICES.
AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW008587

PUBLICATION DATE: JAN 83

TITLE: MANAGING WATER QUALITY BY MIXING WATER FROM DIFFERENT SOURCES.

PERSONAL AUTHOR: LIANG, TUNG; NNAJI, SORONADI

DESCRIPTOR: *MANAGEMENT; *MODELS; *WATER MIXING; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 48-57P.

ABSTRACT: WATER FROM SOURCES EVEN WITHIN A SHORT DISTANCE CAN VARY MARKEDLY IN QUALITY. PROCESSES FOR IMPROVING THE QUALITY OF WATER ARE USUALLY EXPENSIVE. MIXING OF WATER OF DIFFERENT QUALITY SOMETIMES CAN PRODUCE WATER OF USABLE QUALITY WITHOUT RESORTING TO EXPENSIVE WATER PURIFYING PROCESSES. MIXING STRATEGIES ARE CONSIDERED IN THIS ARTICLE.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT, V109 N1

IRIS ACCESSION NUMBER: EW008588

PUBLICATION DATE: JAN 83

TITLE: OPTIMAL OPERATION OF MULTIPLE RESERVOIR SYSTEMS.

PERSONAL AUTHOR: MARTIN, QUENTIN W.

DESCRIPTOR: *HYDROELECTRIC POWER; *IRRIGATION; *MANAGEMENT; *MODELS; *NATURAL RESOURCES; *PLANNING; *RESERVOIRS; *WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 58-74P.

ABSTRACT: PRESENTED IS A METHODOLOGY FOR DETERMINING THE OPTIMAL LONG-TERM OPERATION OF A SPECIFIED SYSTEM OF SURFACE WATER RESOURCES FACILITIES, CONSISTING OF RESERVOIRS, STREAM REACHES, AND WATER CONVEYANCE FACILITIES. THE METHODOLOGY APPLIED TO A LARGE WATER RESOURCES SYSTEM CONSISTING OF 27 RESERVOIRS AND THE RESULTS ARE REVIEWED.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT, V109 N1

IRIS ACCESSION NUMBER: EW008589
PUBLICATION DATE: JAN 83

TITLE: INTEGRATED SIZING OF WATER STORAGE AND CONVEYANCE.

PERSONAL AUTHOR: FLEMING, DAVID E.; AND OTHERS

DESCRIPTOR: *COLORADO RIVER; *DESIGN; *MODELS; *NATURAL RESERVOIRS; *PLANNING; *RESERVOIRS; *WATER DISTRIBUTION; *WATER STORAGE; *WATER SUPPLY; *WATER TREATMENT; *WATER DEMANDS

DESCRIPTIVE NOTE: 94-111P.

ABSTRACT: A METHODOLOGY EMPLOYING DYNAMIC PROGRAMMING IS PRESENTED FOR INTEGRATING THE OPTIMAL DESIGN OF WATER SUPPLY, TREATMENT, AND CONVEYANCE SYSTEMS, WHERE DEMANDS FOR WATER MAY VARY OVER A YEAR. THE METHODOLOGY WAS SUCCESSFULLY APPLIED TO A PORTION OF THE UPPER COLORADO RIVER BASIN.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT, V109 N1

IRIS ACCESSION NUMBER: EW008590

PUBLICATION DATE: DEC 82

TITLE: HOT H2O--WINTER POTION FOR THAWING OUT PIPES.

DESCRIPTOR: *DRINKING WATER; *FREEZING; *HOT WATER; *PIPES; *THAWING; *WATER PIPES; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 1 8 6P.

ABSTRACT: DISCUSSED IS THE FREEZING OF WATER PIPES IN THE WINTER AND ALTERNATIVE PROCEDURES FOR THAWING THE PIPES. HOT WATER IS A SUGGESTED ALTERNATIVE TO OTHER APPROACHES.

AVAILABILITY: OPFLOW, V8 N12

IRIS ACCESSION NUMBER: EW008591

PUBLICATION DATE: DEC 82

TITLE: GUIDELINES FOR HANDLING LAB CHEMICALS SAFELY.

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMICALS; *GUIDELINES; *LABORATORY PROCEDURES; *SAFETY

DESCRIPTIVE NOTE: 4-5P.

ABSTRACT: PRESENTED ARE GUIDELINES FOR HANDLING CHEMICALS IN THE LABORATORY.

AVAILABILITY: OPFLOW, V8 N12

IRIS ACCESSION NUMBER: EW008592
PUBLICATION DATE: DEC 82

TITLE: KEEP YOUR PLANT RUNNING LIKE A 'CLEAN MACHINE'.

PERSONAL AUTHOR: HART, D. H.

DESCRIPTOR: *ELECTRIC MOTORS; *ELECTRIC PUMPS; *GUIDELINES; *MAINTENANCE; *MOTORS; *PIPES; *PUMPS; *RECORD KEEPING; *VALVES

DESCRIPTIVE NOTE: 7P.

ABSTRACT: MAINTENANCE FOR PLANT EQUIPMENT IS ESSENTIAL FOR AN EFFICIENT OPERATION. A NUMBER OF GUIDELINES ARE LISTED FOR VARIOUS ITEMS.

AVAILABILITY: OPFLOW, V8 N12

IRIS ACCESSION NUMBER: EW008593

PUBLICATION DATE: JAN 83

TITLE: ACCEPTABLE ANALYTICAL DATA FOR TRACE ANALYSIS.

PERSONAL AUTHOR: CAIRNS, THOMAS; ROGERS, W. MICHAEL

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *GUIDELINES; *LABORATORY PROCEDURES; *STANDARDS; *TRACE ANALYSIS

DESCRIPTIVE NOTE: 54A-57AP.

ABSTRACT: PROPOSED IS A STANDARD PROTOCOL FOR QUALITATIVE TRACE ANALYSIS IN CASES WHERE OFFICIAL METHODS ARE NOT AVAILABLE.

AVAILABILITY: ANALYTICAL CHEMISTRY, V55 N1

IRIS ACCESSION NUMBER: EW008594

PUBLICATION DATE: JAN 83

TITLE: LABORATORY INFORMATION MANAGEMENT SYSTEM - PART I.

PERSONAL AUTHOR: DESSY, RAYMOND E.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *INFORMATION MANAGEMENT; *INFORMATION RETRIEVAL SYSTEMS; *LABORATORY PROCEDURES; *MANAGEMENT

DESCRIPTIVE NOTE: 70A-80AP.

ABSTRACT: LABORATORY MANAGEMENT SYSTEMS INVOLVE SOME OF THE MOST COMPLEX SOFTWARE IN THE ANALYTICAL LABORATORY. PROVIDED IS A TUTORIAL ON THE PHILOSOPHY BEHIND THESE SYSTEMS.

AVAILABILITY: ANALYTICAL CHEMISTRY, V55 N1

IRIS ACCESSION NUMBER: EW008604
PUBLICATION DATE: JAN 83

TITLE: TEAM EFFORT SOLVES OPERATIONAL PROBLEMS.

PERSONAL AUTHOR: DAIGGER, GLEN T.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 17-22P.

ABSTRACT: SELECTION OF PROPER OPERATING CONDITIONS ALLOWED A CONTACT STABILIZATION PLANT TO TREAT WASTES OF HIGHER STRENGTHS THAN THAT FOR WHICH IT WAS DESIGNED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008605

PUBLICATION DATE: JAN 83

TITLE: THERMAL PRETREATMENT OF SLUDGES--A FIELD DEMONSTRATION

PERSONAL AUTHOR: HAUG, ROGER T.; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; *FIELD DEMONSTRATIONS; *OPERATIONS (WASTEWATER); *SLUDGE; *THERMAL PRETREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 23-34P.

ABSTRACT: MANY EXISTING PLANTS CAN BE UPGRADED TO USE THERMAL PRETREATMENT ANAEROBIC DIGESTION TO IMPROVE SLUDGE HANDLING OPERATIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008606

PUBLICATION DATE: JAN 83

TITLE: USE OF EPA'S CAPDET PROGRAM FOR EVALUATION OF WASTEWATER TREATMENT ALTERNATIVES.

PERSONAL AUTHOR: MCGHEE, TERENCE J.; AND OTHERS

DESCRIPTOR: *COST EFFECTIVENESS; *COSTS; *CAPDET; *COMPUTER APPLICATIONS; *DESIGN; *FACILITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 35-43P.

ABSTRACT: DESCRIBED IS THE CAPDET PROGRAM FOR EVALUATING WASTEWATER TREATMENT ALTERNATIVES. CAPDET IS A USEFUL

TECHNIQUE FOR PROCESS SELECTION, BUT USERS MUST STILL TEST THE PROGRAM OUTPUT FOR REASONABLENESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008607

PUBLICATION DATE: JAN 83

TITLE: MECHANISM OF CLARIFICATION FAILURE.

PERSONAL AUTHOR: LAQUIDARA, VINCENT D.; KEINATH, THOMAS M.

DESCRIPTOR: *CLARIFIERS; *DESIGN; *OPERATIONS (WASTEWATER); *SECONDARY CLARIFIERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 54-57P.

ABSTRACT: ONLY A THICKENING FAILURE CRITERION NEEDS TO BE CONSIDERED IN SECONDARY CLARIFIER DESIGN SINCE THE CLARIFICATION FAILURE CRITERION IS AUTOMATICALLY SATISFIED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008608

PUBLICATION DATE: JAN 83

TITLE: EFFECTIVENESS OF TREATMENT TO MEET PHOSPHORUS OBJECTIVES IN THE GREAT LAKES.

PERSONAL AUTHOR: CHAPRA, STEVEN; AND OTHERS

DESCRIPTOR: *ECONOMICS; *GREAT LAKES; *LAKES; *MANAGEMENT; *PHOSPHORUS; *PLANNING; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 81-91P.

ABSTRACT: AN OPTIMAL PHOSPHORUS MANAGEMENT STRATEGY FOR THE GREAT LAKES SHOULD INCLUDE BOTH POINT AND DIFFUSE SOURCE CONTROLS, AND ZONED RATHER THAN UNIFORM TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008609

PUBLICATION DATE: JAN 83

TITLE: GUIDELINES FOR SAMPLING GROUND WATER.

PERSONAL AUTHOR: LEE, C. FRED; JONES, R. ANNE

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *GROUNDWATER; *GUIDELINES; *MONITORING; *SAMPLING; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 92-96P.

ABSTRACT: DESCRIBED ARE GUIDELINES FOR SAMPLING GROUNDWATER. INVESTIGATORS SHOULD NEVER ASSUME THAT COMMONLY USED SAMPLING AND ANALYTICAL METHODS ARE APPLICABLE TO ALL SITUATIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

IRIS ACCESSION NUMBER: EW008610

PUBLICATION DATE: JAN 83

TITLE: BIOLOGICAL TREATABILITY OF SPECIFIC ORGANIC COMPOUNDS FOUND IN CHEMICAL INDUSTRY WASTEWATERS.

PERSONAL AUTHOR: STOVER, ENOS L.; KINCANNON, DON F.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *CHEMICAL INDUSTRY; *EFFLUENTS; *INDUSTRY; *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 97-109P.

ABSTRACT: THE PROSPECT OF EFFLUENT LIMITATIONS ON A WIDE RANGE OF ORGANIC COMPOUNDS MAKES NECESSARY A DATA BASE FROM WHICH TO PREDICT THEIR BIOLOGICAL TREATABILITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V55 N1

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*EVALUATION	(6)	EW006563	EW008391	EW008396	EW008465	EW008492	EW008500	
*FACILITIES	(37)	EW007326	EW007333	EW007947	EW007983	EW007987	EW008006	EW008037
	EW008280	EW008281	EW008391	EW008405	EW008407	EW008410	EW008411	EW008419
	EW008424	EW008460	EW008477	EW008478	EW008488	EW008518	EW008519	EW008525
	EW008526	EW008533	EW008540	EW008543	EW008546	EW008548	EW008557	EW008562
	EW008563	EW008564	EW008570	EW008575	EW008585	EW008606		
FACILITIES	(4)	EW008141	EW008398	EW008408	EW008586			
*FEASIBILITY STUDIES	(1)	EW007322						
*FEDERAL GOVERNMENT	(1)	EW008392						
FEDERAL GOVERNMENT	(1)	EW008509						
FEDERAL GRANTS	(1)	EW008391						
*FEDERAL PROGRAMS	(1)	EW008533						
FEDERAL PROGRAMS	(1)	EW008509						
*FEDERAL ROLE	(1)	EW008533						
*FERMENTATION	(1)	EW007996						
*FIELD DEMONSTRATIONS	(1)	EW008605						
*FIELD TESTS	(1)	EW008513						
*FILMS	(1)	EW008493						
FILTER LEAF TEST	(1)	EW008442						
*FILTERS	(2)	EW007325	EW007981					
*FILTRATION	(13)	EW007325	EW007981	EW008139	EW008140	EW008259	EW008282	EW008453
	EW008477	EW008496	EW008536	EW008543	EW008574	EW008580		
*FINANCING	(1)	EW007947						
FINANCING	(1)	EW008460						
*FIRE PREVENTION	(1)	EW008420						
*FIRES	(1)	EW008420						
*FISH	(2)	EW007994	EW008019					
FIXED FILM PROCESSES	(1)	EW007981						
*FLEXIBLE PIPES	(1)	EW008431						
*FLOOD CONTROL	(2)	EW008402	EW008481					
*FLOW MEASUREMENT	(1)	EW008138						

FLOW MEASUREMENT	(1)	EW008505						
*FLUID FLOW	(1)	EW008278						
FLUIDIZED-BED COMBUSTION	(1)	EW003027						
FLUIDIZED BED REACTORS	(1)	EW007981						
*FORECASTING	(1)	EW008402						
*FOREST PRODUCTS	(1)	EW007999						
FOSSIL FUELS	(1)	EW008027						
*FRANCE	(1)	EW008574						
*FREEZING	(1)	EW008590						
*FRICTION	(1)	EW008278						
*FRUITS	(1)	EW007995						
*FUNDING	(2)	EW008488	EW008533					
GAC	(2)	EW008137	EW008139					
*GASES	(1)	EW008418						
GAS MEASUREMENT	(1)	EW008010						
GASOLINE	(1)	EW008470						
GAS TRANSFER	(1)	EW008010						
*GATE VALVES	(1)	EW008257						
*GEOMETRY	(1)	EW008039						
*GLOSSARIES	(1)	EW008524						
*GRAINS	(1)	EW007995						
GRANULAR ACTIVATED CARBON	(2)	EW008137	EW008139					
*GRAVITY SEWERS	(1)	EW007327						
*GREAT LAKES	(2)	EW008537	EW008608					
*GREYWATER	(2)	EW007312	EW007316					
*GROUNDWATER	(17)	EW008011	EW008022	EW008137	EW008165	EW008166	EW008167	EW008168
	EW008169	EW008270	EW008468	EW008469	EW008470	EW008471	EW008489	EW008493
	EW008494	EW008609						
GROUNDWATER	(5)	EW007990	EW008006	EW008386	EW008499	EW008509		
*GROUNDWATER RECOVERY	(1)	EW008468						
*GUIDELINES	(10)	EW008511	EW008527	EW008529	EW008530	EW008531	EW008532	EW008591
	EW008592	EW008593	EW008609					
*GUIDES	(4)	EW008461	EW008462	EW008585	EW008586			
*HANDBOOKS	(1)	EW008585						

HANDBOOKS	(1)	EW005544				
*HAZARD ASSESSMENT	(3)	EW008495	EW008497	EW008579		
*HAZARD EVALUATION	(1)	EW008501				
HAZARDOUS MATERIALS	(1)	EW008499				
HAZARDOUS SUBSTANCES	(1)	EW007975				
*HAZARDOUS WASTES	(4)	EW008006	EW008011	EW008168	EW008493	
*HAZEN-WILLIAMS EQUATION	(1)	EW008278				
*HEALTH	(3)	EW008277	EW008413	EW008415		
*HEALTH EFFECTS	(5)	EW007993	EW005024	EW008397	EW008523	EW008578
*HEATING	(1)	EW008518				
*HEAT PUMPS	(1)	EW008518				
HEAT TREATMENT	(1)	EW008454				
*HEAVY METALS	(2)	EW008015	EW008016			
HEAVY METALS	(2)	EW007976	EW008004			
*HERMANN BRAIN DOMINANCE	(1)	EW008554				
*HISTORY	(1)	EW008582				
*HOLDING TANKS	(1)	EW007316				
*HOMES	(1)	EW007312				
HOMES	(1)	EW008400				
*HOSPITALS	(1)	EW008523				
*HOTELS	(1)	EW008523				
*HOT WATER	(1)	EW008590				
HUMAN RESOURCES	(1)	EW008567				
*HYDRANTS	(1)	EW008438				
*HYDRAULICS	(2)	EW008278	EW008505			
HYDRAULICS	(2)	EW008137	EW008386			
*HYDROCARBONS	(1)	EW008470				
HYDROCARBONS	(1)	EW007978				
*HYDROCYCLONES	(1)	EW008539				
*HYDROELECTRIC POWER	(2)	EW008402	EW008588			
*HYDROGEN PEROXIDE	(1)	EW008436				
*HYDROGEN SULFIDE	(1)	EW008569				

*HYDROLOGIC MODELS	(1)	EW008520						
*HYDROLOGY	(3)	EW008469	EW008494	EW008520				
HYDROLOGY	(1)	EW008468						
*IMPLEMENTATION	(1)	EW008275						
*INCENTIVES	(1)	EW008567						
INCENTIVES	(1)	EW008272						
INCINERATION	(2)	EW007986	EW007993					
*INDEXES	(1)	EW008524						
*INDICATOR ORGANISMS	(1)	EW008538						
*INDIRECT TRAINING	(1)	EW008430						
*INDUSTRIAL WASTES	(23)	EW007994	EW007995	EW007996	EW007997	EW007998	EW007999	EW008000
	EW008001	EW008002	EW008003	EW008004	EW008005	EW008006	EW008019	EW008026
	EW008027	EW008028	EW008398	EW008410	EW008414	EW008457	EW008511	EW008539
INDUSTRIAL WASTES	(5)	EW007982	EW007993	EW008282	EW008406	EW008499		
*INDUSTRIES	(1)	EW008502						
*INDUSTRY	(7)	EW008524	EW008527	EW008529	EW008530	EW008531	EW008532	EW008610
INDUSTRY	(2)	EW007990	EW008511					
*INFILTRATION	(4)	EW008408	EW008411	EW008421	EW008422			
*INFLOW	(1)	EW008422						
*INFLUENTS	(2)	EW007316	EW008512					
*INFORMATION MANAGEMENT	(1)	EW008594						
*INFORMATION RETRIEVAL SYSTEMS	(1)	EW008594						
*INFORMATION SOURCES	(1)	EW008405						
*INFORMATION TRANSFER	(1)	EW008522						
INITIAL SETTLING VELOCITY	(1)	EW008409						
*INORGANIC COMPOUNDS	(1)	EW007976						
INORGANIC COMPOUNDS	(1)	EW007989						
*INSITUFORM	(1)	EW008421						
*INSTRUCTION	(8)	EW008271	EW008275	EW008390	EW008430	EW008552	EW008553	EW008554
	EW008562							
*INSTRUCTIONAL MATERIALS	(30)	EW005544	EW007244	EW007316	EW007317	EW007318	EW007319	EW007320
	EW007321	EW007322	EW007323	EW007324	EW007325	EW007326	EW007327	EW007332
	EW008037	EW008038	EW008039	EW008271	EW008394	EW008395	EW008487	EW008491
	EW008496	EW008497	EW008499	EW008503	EW008504	EW008505	EW008506	
INSTRUCTIONAL MATERIALS	(14)	EW008439	EW008440	EW008441	EW008442	EW008443	EW008444	EW008445
	EW008446	EW008447	EW008448	EW008449	EW008450	EW008451	EW008452	

*INSTRUCTIONAL SYSTEMS	(1)	EW008275						
*INSTRUMENTATION	(9)	EW007979	EW007988	EW008412	EW008416	EW008426	EW008513	EW008522
	EW008541	EW008560						
INSTRUMENTATION	(1)	EW007982						
*INSTRUMENTS	(1)	EW007333						
*INTERNATIONAL AGREEMENTS	(1)	EW008540						
*INTERNATIONAL PROBLEMS	(1)	EW008565						
*INTERNATIONAL PROJECTS	(1)	EW008540						
*INTERPERSONAL RELATIONS	(1)	EW008467						
*INTERVIEWS	(2)	EW008554	EW008573					
*INVERTEBRATES	(4)	EW008017	EW008018	EW008434	EW008497			
ION EXCHANGE	(1)	EW007980						
*IRON INDUSTRY	(5)	EW008527	EW008529	EW008530	EW008531	EW008532		
*IRON PIPE	(1)	EW008556						
*IRRIGATION	(3)	EW008367	EW008402	EW008588				
IRRIGATION	(2)	EW007990	EW008509					
ISOLATION	(1)	EW008029						
JAR TEST	(1)	EW008443						
*JOB AIDS	(1)	EW008274						
*KANSAS CITY	(1)	EW008410						
*KINETICS	(1)	EW008458						
KNOWLEDGE	(2)	EW008272	EW008273					
*LABORATORIES	(1)	EW008383						
*LABORATORY EQUIPMENT	(1)	EW008522						
LABORATORY EQUIPMENT	(1)	EW008441						
*LABORATORY PROCEDURES	(28)	EW007976	EW008014	EW008025	EW008029	EW008038	EW008102	EW008393
	EW008395	EW008439	EW008440	EW008441	EW008442	EW008443	EW008444	EW008445
	EW008446	EW008447	EW008448	EW008449	EW008450	EW008451	EW008452	EW008487
	EW008491	EW008578	EW008591	EW008593	EW008594			
*LABORATORY SKILLS	(1)	EW008504						
*LABORATORY TECHNICIANS	(1)	EW008491						
*LACOONS	(3)	EW007983	EW008282	EW008543				
*LAKE ERIE	(1)	EW008537						

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*LAKES	(6)	EW008008 EW008021 EW008322 EW008472 EW008521 EW008608
LAKES	(1)	EW008009
*LAND APPLICATION	(5)	EW007991 EW007993 EW008386 EW008387 EW008413
LAND APPLICATION	(1)	EW008026
LANDFILLS	(1)	EW008499
*LAND USE	(3)	EW008544 EW008548 EW008557
LAND USE	(1)	EW007974
*LEADERS	(1)	EW008555
*LEADERSHIP	(1)	EW008555
*LEAK DETECTION	(1)	EW008571
*LEAKS	(2)	EW008571 EW008576
*LEARNING	(5)	EW008276 EW008429 EW008430 EW008553 EW008554
*LEARNING STYLES	(1)	EW008430
*LEARNING THEORIES	(1)	EW008554
*LEGAL ASPECTS	(1)	EW007975
LEGAL ASPECTS	(1)	EW008509
*LEGIONNAIRES DISEASE	(2)	EW008323 EW008577
~~*LEGIONNAIRES' DISEASE~~	(1)	EW008523
*LEGISLATION	(2)	EW007975 EW008481
LEGISLATION	(1)	EW007997
*LIME STABILIZATION	(1)	EW008544
LIMITING FLUX THEORY	(1)	EW008409
*LITERATURE REVIEWS	(56)	EW007973 EW007974 EW007975 EW007976 EW007977 EW007978 EW007979
	EW007980	EW007981 EW007982 EW007983 EW007984 EW007985 EW007986 EW007987
	EW007988	EW007989 EW007990 EW007991 EW007992 EW007993 EW007994 EW007995
	EW007996	EW007997 EW007998 EW007999 EW008000 EW008001 EW008002 EW008004
	EW008005	EW008006 EW008007 EW008008 EW008009 EW008010 EW008011 EW008012
	EW008013	EW008014 EW008015 EW008016 EW008017 EW008018 EW008019 EW008020
	EW008021	EW008022 EW008023 EW008024 EW008025 EW008026 EW008027 EW008028
	EW008029	
LOCAL GOVERNMENT	(1)	EW008399
*LOUISIANA	(1)	EW008421
*MACROINVERTEBRATES	(1)	EW008018
*MAINE	(1)	EW008518
*MAINTENANCE	(31)	EW007318 EW007319 EW007320 EW007321 EW007324 EW007325 EW007327
	EW007988	EW008037 EW008280 EW008401 EW008404 EW008416 EW008420 EW008421
	EW008422	EW008437 EW008438 EW008479 EW008486 EW008487 EW008541 EW008545

MAINTENANCE	EW008546 (2)	EW008547 EW008400	EW008550 EW008461	EW008551	EW008575	EW008580	EW008585	EW008592
*MANAGEMENT	(37) EW008137 EW008390 EW008467 EW008572	EW007332 EW008140 EW008417 EW008498 EW008587	EW007944 EW008272 EW008429 EW008521 EW008588	EW007945 EW008273 EW008433 EW008525 EW008594	EW007947 EW008274 EW008435 EW008541 EW008604	EW007992 EW008276 EW008437 EW008542 EW008608	EW007999 EW008281 EW008438 EW008545	EW008007 EW008389 EW008466 EW008550
MANAGEMENT	(7)	EW007987	EW008009	EW008392	EW008436	EW008453	EW008460	EW008509
*MANAGEMENT STYLE	(1)	EW008542						
*MANAGEMENT TECHNIQUES	(1)	EW008525						
*MANHOLES	(1)	EW008418						
*MANPOWER	(1)	EW008392						
*MANPOWER DEVELOPMENT	(2)	EW008389	EW008390					
*MANPOWER NEEDS	(1)	EW008573						
*MANUALS	(1)	EW008586						
*MANUFACTURERS	(1)	EW007333						
MANUFACTURERS	(1)	EW008461						
*MANUFACTURING	(1)	EW008502						
*MARINE BIOLOGY	(1)	EW008565						
*MARINE ENVIRONMENTS	(1)	EW008012						
*MARYLAND	(1)	EW008424						
*MASSACHUSETTS	(1)	EW008420						
*MATHEMATICAL APPLICATIONS	(2)	EW008469	EW008504					
MATHEMATICAL APPLICATIONS	(1)	EW008411						
*MATHEMATICAL MODELS	(3)	EW008458	EW008459	EW008575				
*MATHEMATICS	(2)	EW008039	EW008504					
*MEASUREMENT	(3)	EW008426	EW008524	EW008554				
*MEAT	(1)	EW007994						
MECHANICAL OIL SKIMMERS	(1)	EW008462						
*MEETINGS	(1)	EW008542						
MEMBRANE PROCESSES	(1)	EW007980						
*METALS	(4)	EW007976	EW008456	EW008528	EW008564			
METALS	(1)	EW008511						
*MICHIGAN	(1)	EW008480						

*MICROBIOLOGY	(12)	EW007991	EW008020	EW008021	EW008022	EW008023	EW008025	EW008026
	EW008029	EW008394	EW008434	EW008500	EW008538			
MICROBIOLOGY	(6)	EW007984	EW007985	EW007989	EW008012	EW008445	EW008446	
*MICROCOMPUTERS	(2)	EW008412	EW008553					
*MICROFAUNA	(1)	EW008020						
MICROORGANISMS	(1)	EW008014						
*MICROPROCESSOR BUFFERING SYSTEMS	(1)	EW008522						
*MICROPROCESSORS	(1)	EW008522						
MICROPROCESSORS	(1)	EW008412						
*MICROSCREENS	(1)	EW008282						
*MINING	(2)	EW008000	EW007412					
*MINNESOTA	(1)	EW008521						
*MISSOURI	(1)	EW008410						
*MIXERS	(2)	EW008416	EW008546					
*MIXING	(1)	EW008546						
*MOBILE EQUIPMENT	(1)	EW008516						
*MODELING	(3)	EW007973	EW008270	EW008402				
MODELING	(10)	EW007982	EW007988	EW008007	EW008009	EW008010	EW008011	EW008013
	EW008016	EW008458	EW008495					
*MODELS	(12)	EW008275	EW008403	EW008432	EW008456	EW008472	EW008475	EW008478
	EW008520	EW008521	EW008587	EW008588	EW008589			
MODELS	(1)	EW007983						
*MONITORING	(22)	EW007979	EW008011	EW008028	EW008137	EW008138	EW008141	EW008165
	EW008166	EW008168	EW008169	EW008412	EW008414	EW008422	EW008427	EW008498
	EW008498	EW008500	EW008521	EW008559	EW008560	EW008571	EW008609	
MONITORING	(4)	EW008386	EW008387	EW008469	EW008471			
*MONITORING WELLS	(1)	EW008168						
*MOTIONLESS MIXERS	(1)	EW008416						
*MOTIVATION	(2)	EW008272	EW008273					
*MOTORS	(1)	EW008592						
*MOUND SYSTEMS	(1)	EW007319						
MUNICIPALITIES	(2)	EW008460	EW008484					
*MUNICIPAL WASTES	(3)	EW008019	EW008410	EW008459				
MUNICIPAL WASTES	(2)	EW008387	EW008586					
*NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS	(1)	EW008509						

*NATURAL RESERVOIRS	(1)	EW008589						
*NATURAL RESOURCES	(11)	EW008165	EW008270	EW008367	EW008402	EW008468	EW008470	EW008471
	EW008557	EW008565	EW008572	EW008588				
*NETA	(2)	EW008389	EW008390					
*NEW JERSEY	(1)	EW008493						
*NEW YORK	(2)	EW008425	EW008569					
*NITRATES	(1)	EW008413						
*NITRIFICATION	(1)	EW008458						
NITROGEN	(1)	EW007982						
NOISE	(1)	EW008400						
*NOISE POLLUTION	(1)	EW008489						
*NONPOINT POLLUTION	(1)	EW007974						
*NONPOINT SOURCE POLLUTION	(2)	EW008007	EW008521					
*NONYLPHENOLS	(1)	EW008476						
*NONYLPHENOL ETHOXYLATES	(1)	EW008476						
*NPDES	(1)	EW008406						
NPDES	(2)	EW007975	EW008405					
NUCLEAR POWER	(2)	EW008027	EW008028					
NUTRIENT LOADING	(1)	EW008009						
*NUTRIENTS	(2)	EW008016	EW008459					
NUTRIENTS	(1)	EW007991						
*OBJECTIVES	(1)	EW008429						
OBJECTIVES	(1)	EW008566						
*OCCUPATIONAL HEALTH	(1)	EW005544						
*OCEAN DUMPING	(2)	EW008489	EW008565					
*OCEANOGRAPHY	(2)	EW008475	EW008565					
*OCEAN OUTFALLS	(1)	EW008475						
*OCEANS	(2)	EW008012	EW008475					
*ODOR CONTROL	(1)	EW008534						
*ODORS	(3)	EW008436	EW008534	EW008569				
ODORS	(2)	EW007977	EW008400					
*OHIO RIVER	(1)	EW008490						

*OHSA	(1)	EW008277						
*OIL	(1)	EW008426						
OIL	(2)	EW008462	EW008463					
*OIL COLLECTION	(1)	EW008462						
*OIL DISPOSAL	(1)	EW008499						
OIL DRILLING	(1)	EW008012						
*OIL INDUSTRY	(1)	EW008528						
*OIL SHALE	(1)	EW008002						
*OIL SHALE INDUSTRY	(1)	EW008167						
*OIL SLICKS	(1)	EW008426						
*OIL SPILL CLEANUP	(1)	EW008463						
*OIL SPILLS	(2)	EW008462	EW008499					
OIL SPILLS	(1)	EW008012						
*ONSITE DETENTION	(1)	EW008557						
*ONSITE DISPOSAL	(1)	EW007987						
*ONSITE TREATMENT	(4)	EW007321	EW007324	EW007325	EW007987			
ONSITE TREATMENT	(1)	EW007993						
*ONSITE WASTEWATER DISPOSAL	(7)	EW007316	EW007317	EW007318	EW007319	EW007320	EW007322	EW007323
*ONSITE WASTEWATER TREATMENT	(7)	EW007311	EW007312	EW007313	EW007314	EW007332	EW007333	EW008037
OPERATING EXPENSES	(1)	EW008567						
*OPERATIONS (WASTEWATER)	(75)	EW006563	EW007244	EW007321	EW007324	EW007333	EW007944	EW007948
	EW007949	EW007981	EW007982	EW007984	EW007988	EW007989	EW007991	EW008001
	EW008037	EW008038	EW008039	EW008141	EW008281	EW008282	EW008389	EW008393
	EW008394	EW008398	EW008407	EW008410	EW008414	EW008416	EW008417	EW008424
	EW008436	EW008439	EW008440	EW008441	EW008442	EW008443	EW008444	EW008445
	EW008446	EW008447	EW008448	EW008449	EW008450	EW008451	EW008452	EW008454
	EW008455	EW008456	EW008457	EW008458	EW008474	EW008484	EW008485	EW008487
	EW008491	EW008492	EW008511	EW008535	EW008536	EW008539	EW008540	EW008541
	EW008544	EW008545	EW008558	EW008562	EW008569	EW008570	EW008585	EW008586
	EW008604	EW008605	EW008606	EW008607				
OPERATIONS (WASTEWATER)	(3)	EW007973	EW007999	EW008453				
*OPERATIONS (WATER)	(36)	EW006563	EW007244	EW007944	EW007989	EW008139	EW008140	EW008259
	EW008279	EW008282	EW008433	EW008437	EW008438	EW008460	EW008464	EW008465
	EW008477	EW008492	EW008496	EW008502	EW008503	EW008505	EW008506	EW008516
	EW008526	EW008537	EW008541	EW008543	EW008546	EW008549	EW008550	EW008551
	EW008560	EW008571	EW008574	EW008575	EW008580			
OPERATIONS (WATER)	(2)	EW007973	EW008449					

*OPERATORS	(1)	EW008396						
*OPERATORS (WASTEWATER)	(2)	EW008492	EW008582					
*OPERATORS (WATER)	(3)	EW008465	EW008492	EW008582				
*OPERATOR TRAINING	(4)	EW007988	EW008390	EW008503	EW008504			
*OREGON	(1)	EW008559						
*ORGANIC CARBON	(1)	EW008474						
*ORGANIC CHEMICALS	(1)	EW008476						
*ORGANIC COMPOUNDS	(5)	EW007978	EW008016	EW008393	EW008579	EW008616		
ORGANIC COMPOUNDS	(2)	EW007989	EW008511					
ORGANIC POLLUTANTS	(1)	EW008139						
*ORGANIC SUBSTANCES	(1)	EW008528						
*ORGANIC WASTES	(1)	EW008137						
ORGANIC WASTES	(1)	EW008018						
*ORSANCO	(1)	EW008490						
*OVERFLOWS	(1)	EW008408						
*OXIDATION PONDS	(1)	EW007983						
OXIDATIVE PROCESSES	(1)	EW007980						
*OXYGENATION	(2)	EW008410	EW008517					
OXYGEN PROFILE TEST	(1)	EW008445						
OXYGEN UPTAKE	(1)	EW007982						
OXYGEN UPTAKE TEST	(1)	EW008446						
*OZONATION	(1)	EW008139						
*OZONE	(2)	EW008574	EW008581					
OZONE	(1)	EW008397						
*PACKAGE PLANTS	(1)	EW008037						
*PAPER INDUSTRY	(1)	EW007999						
*PATHOGENS	(4)	EW008023	EW008413	EW008523	EW008538			
PERCEPTION TESTS	(1)	EW008466						
*PERFORMANCE	(2)	EW008273	EW008274					
*PERFORMANCE EVALUATION	(47)	EW007944	EW007945	EW008037	EW008138	EW008167	EW008258	EW008272
		EW008273	EW008274	EW008275	EW008276	EW008281	EW008383	EW008392	EW008398
		EW008400	EW008407	EW008409	EW008416	EW008417	EW008429	EW008454	EW008455
		EW008457	EW008458	EW008462	EW008468	EW008470	EW008485	EW008486	EW008511

	EW008512 EW008513 EW008516 EW008518 EW008519 EW008526 EW008536 EW008545 EW008555 EW008558 EW008561 EW008576 EW008581 EW008585 EW008604 EW008606	
PERFORMANCE EVALUATION	(4)	EW007983 EW007984 EW008410 EW008586
PERFORMANCE FACTORS	(1)	EW008567
*PERMEABILITY	(2)	EW008166 EW008494
*PERMITS	(1)	EW008406
*PERSONNEL	(2)	EW008392 EW008573
*PESTICIDES	(2)	EW008434 EW008501
PESTICIDES	(3)	EW007978 EW008012 EW008511
*PETROLEUM INDUSTRY	(1)	EW008001
*PH	(1)	EW008472
*PHILOSOPHY	(1)	EW008553
*PHOSPHORUS	(3)	EW008424 EW008459 EW008698
*PHOSTRIP	(1)	EW008424
*PHYSICAL TREATMENT	(1)	EW007980
*PHYSICS	(1)	EW008260
PICKLING	(1)	EW008003
*PILOT PLANTS	(1)	EW008455
PILOT PLANTS	(1)	EW008457
*PILOT PLANT STUDIES	(1)	EW008526
*PILOT STUDIES	(1)	EW008536
*PIPE REPLACEMENT	(1)	EW008401
*PIPES	(17) EW007949 EW008257 EW008401 EW008404 EW008415 EW008420 EW008421 EW008422 EW008425 EW008431 EW008480 EW008556 EW008561 EW008571 EW008577 EW008590 EW008592	
PIPES (WATER)	(1)	EW008505
*PLANNING	(24) EW007326 EW007332 EW007944 EW008367 EW008391 EW008401 EW008419 EW008425 EW008432 EW008433 EW008436 EW008490 EW008525 EW008533 EW008540 EW008541 EW008548 EW008557 EW008563 EW008573 EW008576 EW008588 EW008589 EW008608	
PLANNING	(6)	EW008138 EW008387 EW008408 EW008460 EW008468 EW008509
*PLANNING TECHNIQUES	(1)	EW008525
PLUMBING	(1)	EW005544

PNEUMATIC RECOVERY	(1)	EW008471
*PNEUMONIA	(1)	EW008523
*POLICIES	(5)	EW007944 EW008408 EW007944 EW008490 EW008572 EW008573
POLICY ANALYSIS	(1)	EW008391
*POLICY FORMATION	(1)	EW008509
POLICY FORMATION	(1)	EW008406
*POLLUTANTS	(4)	EW007316 EW008427 EW008511 EW008512
POLLUTANTS	(2)	EW008386 EW008412
*POLLUTION	(11)	EW008137 EW008165 EW008166 EW008168 EW008270 EW008493 EW008494 EW008520 EW008534 EW008559 EW008574
*POLLUTION ABATEMENT	(4)	EW008423 EW008468 EW008470 EW008471
*POLLUTION CONTROL	(26)	EW007973 EW007974 EW007975 EW008000 EW008001 EW008002 EW008003 EW008004 EW008005 EW008007 EW008008 EW008009 EW008012 EW008029 EW008398 EW008406 EW008412 EW008427 EW008453 EW008462 EW008463 EW008481 EW008489 EW008499 EW008534 EW008559
POLLUTION CONTROL	(2)	EW007979 EW008391
POLYCHLORINATED BIPHENYLS	(1)	EW008387
*POLYETHYLENE PIPES	(1)	EW007949
*POST SECONDARY EDUCATION	(29)	EW007316 EW007317 EW007318 EW007319 EW007320 EW007321 EW007322 EW007323 EW007324 EW007325 EW007326 EW007327 EW007332 EW008037 EW008038 EW008039 EW008394 EW008395 EW008487 EW008491 EW008496 EW008497 EW008499 EW008503 EW008504 EW008505 EW008506 EW008553 EW008555
POST SECONDARY EDUCATION	(15)	EW008439 EW008440 EW008441 EW008442 EW008443 EW008444 EW008445 EW008446 EW008447 EW008448 EW008449 EW008450 EW008451 EW008566 EW008567
*POTABLE WATER	(2)	EW008022 EW008579
*POTASSIUM PERMANGANATE	(1)	EW008569
POTOMAC RIVER	(1)	EW008453
POTW	(1)	EW008585
*POULTRY	(1)	EW007994
*POWDERED ACTIVATED CARBON	(1)	EW007945
*POWER INDUSTRY	(1)	EW008027
*POWER PLANTS	(1)	EW008456
*POWER PRODUCTION	(2)	EW008027 EW008456
*PRECIPITATION	(1)	EW008411

*PREDICTION	(1)	EW008537						
*PRESSURE SEWERS	(1)	EW007315						
*PRETREATMENT	(5)	EW008527	EW008529	EW008530	EW008531	EW008532		
PRETREATMENT	(2)	EW008454	EW008484					
*PRIMARY TREATMENT	(1)	EW008407						
*PRIVYS	(1)	EW007311						
*PROBE MODEL	(1)	EW008272						
*PROBLEM SOLVING	(1)	EW008429						
*PROCESS CONTROL	(1)	EW008141						
*PROCESS DESCRIPTIONS	(3)	EW007984	EW007985	EW008398				
PROCESS DESCRIPTIONS	(4)	EW007982	EW007983	EW007988	EW008503			
*PROCESS DESIGN	(2)	EW008140	EW008586					
*PROCUREMENT	(1)	EW008488						
*PROGRAM DESCRIPTIONS	(8)	EW008387	EW008390	EW008392	EW008399	EW008406	EW008427	EW008566
	EW008567							
PROGRAM DESCRIPTIONS	(2)	EW008389	EW008405					
*PROGRAMMABLE CALCULATORS	(1)	EW008431						
*PROGRAMS	(1)	EW008278						
*PROJECT DESCRIPTIONS	(1)	EW008425						
*PROPOSALS	(1)	EW008533						
*PSYCHOLOGY	(2)	EW008466	EW008554					
*PUBLIC HEALTH	(11)	EW007993	EW008024	EW008401	EW008413	EW008437	EW008523	EW008577
	EW008578	EW008579	EW008580	EW008581				
PUBLIC HEALTH	(5)	EW005544	EW007990	EW007991	EW008397	EW008399		
*PUBLIC PARTICIPATION	(3)	EW008548	EW008550	EW008573				
*PUBLIC POLICY	(3)	EW007974	EW007975	EW008509				
*PUBLIC PROJECTS	(1)	EW008548						
PUBLIC RELATIONS	(1)	EW008387						
*PUBLIC WORKS	(1)	EW008548						
*PULP INDUSTRY	(1)	EW007999						
*PUMPING	(1)	EW008167						
*PUMPING TESTS	(1)	EW008166						
*PUMPS	(3)	EW008461	EW008547	EW008592				

PUMPS	(1)	EW008505
*PURCHASING	(1)	EW008433
*QUALITY CIRCLES	(1)	EW008555
*QUALITY CONTROL	(3)	EW007944 EW008029 EW008281
*RADIOACTIVE MATERIALS	(1)	EW008028
*RADIOACTIVE WASTES	(1)	EW008028
RADIOACTIVITY	(1)	EW007977
*RATES	(1)	EW008435
REAERATION	(1)	EW008010
*RECOMMENDATIONS	(3)	EW008499 EW008509 EW008577
*RECORD KEEPING	(2)	EW008258 EW008592
*RECORDS	(4)	EW008258 EW008383 EW008550 EW008560
RECREATION	(1)	EW008509
*RECREATION AREAS	(1)	EW008519
*RECYCLING	(3)	EW007313 EW007990 EW008578
RECYCLING	(1)	EW008387
*REFERENCE MATERIALS	(1)	EW008405
*REGULATIONS	(16)	EW007975 EW008139 EW008270 EW008277 EW008391 EW008406 EW008473 EW008478 EW008481 EW008488 EW008527 EW008529 EW008530 EW008531 EW008532 EW008573
REGULATIONS	(6)	EW007997 EW008000 EW008004 EW008027 EW008387 EW008408
*REHABILITATION	(1)	EW008422
*RELIABILITY	(1)	EW007316
*RELINING	(1)	EW008404
*RENEWABLE ENERGY SOURCES	(1)	EW008392
*REPAIRS	(1)	EW008479
*REPORTS	(1)	EW008513
*RESEARCH	(9)	EW008472 EW008501 EW008535 EW008537 EW008538 EW008539 EW008565 EW008578 EW008581
*RESEARCH METHODOLOGY	(1)	EW008526
*RESEARCH REPORTS	(78)	EW007973 EW007974 EW007976 EW007977 EW007978 EW007979 EW007980 EW007981 EW007982 EW007983 EW007984 EW007985 EW007986 EW007987 EW007989 EW007990 EW007991 EW007992 EW007993 EW007994 EW007995 EW007996 EW007997 EW007998 EW007999 EW008000 EW008001 EW008002 EW008003 EW008004 EW008005 EW008006 EW008007 EW008008 EW008009 EW008011 EW008012 EW008013 EW008014

	EW008015 EW008023 EW008322 EW008455 EW008495	EW008016 EW008024 EW008386 EW008456 EW008497	EW008017 EW008025 EW008387 EW008457 EW008498	EW008018 EW008026 EW008397 EW008458 EW008512	EW008019 EW008027 EW008401 EW008459 EW008523	EW008020 EW008028 EW008426 EW008466 EW008528	EW008021 EW008029 EW008453 EW008474 EW008610	EW008022 EW008102 EW008454 EW008476
RESEARCH REPORTS	(3)	EW007988	EW008407	EW008517				
*RESERVOIRS	(9) EW008588	EW008010 EW008589	EW008280	EW008402	EW008403	EW008437	EW008496	EW008577
*RESIDENTIAL SYSTEMS	(1)	EW008400						
*RESPONSE MANUALS	(1)	EW008427						
*RETENTION FACILITIES	(1)	EW008423						
*REVERSE OSMOSIS	(1)	EW008474						
RISE TIME TEST	(1)	EW008447						
*RISK ASSESSMENT	(2)	EW008578	EW008579					
RISK ASSESSMENT	(1)	EW008028						
*RIVERS	(3)	EW008008	EW008021	EW008490				
RIVERS	(1)	EW008453						
*ROTATING BIOLOGICAL CONTACTORS	(1)	EW008519						
ROTATING BIOLOGICAL CONTACTORS	(1)	EW007981						
*RUNOFF	(1)	EW007992						
*SAFETY	(9) EW008569	EW005544 EW008591	EW008277	EW008383	EW008418	EW008535	EW008549	EW008551
SALINITY	(1)	EW007977						
SALT MARSHES	(1)	EW008008						
*SAMPLING	(12) EW008449	EW007944 EW008469	EW007979 EW008512	EW008016 EW008528	EW008166 EW008609	EW008167	EW008169	EW008414
SAMPLING	(4)	EW008011	EW008018	EW008029	EW008445			
*SAND FILTERS	(1)	EW007325						
*SAN FRANCISCO	(1)	EW008408						
SANITATION	(1)	EW007987						
*SEAFOOD INDUSTRY	(1)	EW008539						
*SECONDARY CLARIFIERS	(1)	EW008607						
*SEDIMENTS	(1)	EW008016						
*SELECTION CRITERIA	(1)	EW008519						
*SEPTAGE	(1)	EW007314						
*SEPTIC TANKS	(2)	EW007314	EW007321					

SETTLEOMETER TEST	(1)	EW008450						
*SETTLING	(1)	EW008409						
SEWAGE	(1)	EW008387						
SEWAGE DISPOSAL	(1)	EW005544						
*SEWAGE PUMPS	(1)	EW008461						
*SEWER LININGS	(1)	EW008421						
*SEWER PIPES	(1)	EW008421						
*SEWERS	(10)	EW007315	EW007327	EW007992	EW008138	EW008411	EW008418	EW008422
	EW008479	EW008486	EW008561					
*SEWER SYSTEMS	(1)	EW008411						
SEWER SYSTEMS	(1)	EW008405						
*SIMULATIONS	(2)	EW008408	EW008432					
SITE ASSESSMENT	(1)	EW008471						
*SITE EVALUATION	(1)	EW007317						
*SITE INVESTIGATIONS	(1)	EW008168						
*SITING	(1)	EW008477						
*SKILL DEVELOPMENT	(2)	EW008429	EW008552					
*SKIMMERS	(1)	EW008462						
*SLUDGE	(29)	EW007982	EW007986	EW007993	EW008025	EW008026	EW008387	EW008394
	EW008407	EW008413	EW008439	EW008440	EW008441	EW008442	EW008444	EW008446
	EW008447	EW008450	EW008451	EW008454	EW008457	EW008458	EW008475	EW008487
	EW008543	EW008544	EW008569	EW008570	EW008586	EW008605		
SLUDGE	(3)	EW008139	EW008443	EW008448				
SLUDGE BLANKET FINDERS	(1)	EW008441						
*SLUDGE DEWATERING	(1)	EW008586						
*SLUDGE DISPOSAL	(3)	EW008387	EW008543	EW008544				
*SLUDGE HANDLING	(1)	EW008387						
SLUDGE HANDLING	(1)	EW008484						
SLUDGE STABILIZATION	(1)	EW007986						
SLUDGE TREATMENT	(5)	EW007986	EW008004	EW008407	EW008409	EW008454		
SLUDGE UTILIZATION	(1)	EW007986						
SLURRY PROCESSES	(1)	EW007985						
*SMALL WASTEWATER SYSTEMS	(2)	EW007326	EW007332					
*SMALL WATER SYSTEMS	(1)	EW008399						

*SOIL ABSORPTION	(5)	EW007317 EW007318 EW007319 EW007320 EW007322
*SOILS	(7)	EW007317 EW007318 EW007319 EW007320 EW007322 EW007323 EW008494
SOILS	(2)	EW007985 EW007987
SOLID MASS BALANCE	(1)	EW008444
*SOLIDS	(1)	EW008457
*SOLIDS HANDLING	(1)	EW008461
SOLIDS SEPARATION	(1)	EW007980
SOLID WASTE MANAGEMENT	(1)	EW005544
*SOLID WASTES	(2)	EW008006 EW008489
SOLID WASTES	(2)	EW008444 EW008452
SPECIFICATIONS	(1)	EW008461
*SPECIFIC RESISTANCE TEST	(1)	EW008451
*SPEECHES	(2)	EW008485 EW008486
*SPILLS	(1)	EW008427
STABILIZATION PONDS	(1)	EW008026
STAFF ASSESSMENT	(1)	EW008392
*STAFFING	(1)	EW008383
STAFF UTILIZATION	(1)	EW008392
*STANDARDS	(9)	EW007975 EW008102 EW008500 EW008527 EW008529 EW008530 EW008531 EW008532 EW008593
STANDARDS	(1)	EW008406
*START-UP	(2)	EW008487 EW008562
STATE GOVERNMENT	(1)	EW008399
*STATE-OF-THE-ART REVIEWS	(55)	EW007974 EW007976 EW007977 EW007978 EW007979 EW007980 EW007981 EW007982 EW007983 EW007984 EW007985 EW007986 EW007987 EW007988 EW007989 EW007990 EW007991 EW007992 EW007993 EW007994 EW007995 EW007996 EW007997 EW007998 EW007999 EW008000 EW008001 EW008002 EW008003 EW008004 EW008005 EW008006 EW008007 EW008008 EW008009 EW008010 EW008011 EW008012 EW008013 EW008014 EW008015 EW008016 EW008017 EW008018 EW008019 EW008020 EW008021 EW008022 EW008023 EW008024 EW008025 EW008026 EW008027 EW008028 EW008029
STATE-OF-THE-ART REVIEWS	(2)	EW007973 EW008497
*STATE PROGRAMS	(1)	EW008399
*STATISTICS	(1)	EW008575

*STEEL INDUSTRY	(6)	EW008003 EW008527 EW008529 EW008530 EW008531 EW008532
STORAGE	(1)	EW008028
*STORMWATER	(4)	EW007992 EW008411 EW008423 EW008481
STORM WATER	(1)	EW008408
*STREAMFLOW	(1)	EW008402
*STREAMS	(2)	EW008010 EW008322
*STUDIES	(1)	EW008563
*SUBMERSIBLE PUMPS	(1)	EW008461
*SUBSURFACE INJECTION	(1)	EW008496
*SUPERVISION	(1)	EW008541
SUPERVISION	(1)	EW008467
*SUPERVISORS	(1)	EW008467
*SUPPLIES	(1)	EW007333
*SURFACE RUNOFF	(8)	EW007992 EW008402 EW008403 EW008411 EW008423 EW008481 EW008521 EW008557
*SURFACE WATER	(1)	EW008493
SURFACTANTS	(1)	EW007978
*SURVEYS	(2)	EW008400 EW008576
*SUSPENDED SOLIDS	(1)	EW008539
SUSPENDED SOLIDS	(1)	EW007977
*SYNTHETIC FUELS	(1)	EW008002
*SYSTEM DESIGN	(1)	EW007322
*SYSTEMS ANALYSIS	(1)	EW007973
*TANKS	(2)	EW008437 EW008564
*TASK ANALYSIS	(1)	EW008276
TASTE	(1)	EW007977
*TEACHING	(1)	EW008554
*TEACHING GUIDES	(1)	EW007244
TEACHING GUIDES	(14)	EW008439 EW008440 EW008441 EW008442 EW008443 EW008444 EW008445 EW008446 EW008447 EW008448 EW008449 EW008450 EW008451 EW008452
*TECHNICAL EDUCATION	(1)	EW008491
*TECHNICAL TRAINING	(1)	EW008276

TECHNIQUES	(1)	EW008409
*TECHNOLOGICAL ADVANCEMENTS	(6)	EW007981 EW007988 EW008412 EW008462 EW008463 EW008484
*TECHNOLOGICAL ALTERNATIVES	(1)	EW008139
*TECHNOLOGY	(14)	EW007987 EW007990 EW008001 EW008003 EW008139 EW008419 EW008423 EW008424 EW008426 EW008428 EW008462 EW008463 EW008511 EW008517
TECHNOLOGY	(3)	EW007980 EW008412 EW008586
*TELEMETRY	(1)	EW008560
*TELEVISION	(1)	EW008479
TEMPERATURE	(2)	EW007977 EW008013
*TEST DEVELOPMENT	(1)	EW008582
*TESTING	(2)	EW008497 EW008513
TESTING	(2)	EW008014 EW008498
*TEST ITEMS	(1)	EW008396
TEST PROCEDURES	(1)	EW008513
*TEST QUESTIONS	(1)	EW008465
TEST RESULTS	(1)	EW008463
*TESTS	(3)	EW006563 EW008396 EW008492
*TEXAS	(1)	EW008563
*TEXTBOOKS	(1)	EW005544
*TEXTILES	(1)	EW007998
*THAWING	(1)	EW008590
*THERMAL CONDITIONING	(1)	EW008454
*THERMAL EFFECTS	(1)	EW008013
*THERMAL PRETREATMENT	(1)	EW008605
*TOC	(1)	EW008393
*TOXICITY	(3)	EW008015 EW008020 EW008497
*TOXICOLOGY	(4)	EW008397 EW008495 EW008498 EW008501
*TOXIC SUBSTANCES	(7)	EW008015 EW008456 EW008476 EW008493 EW008511 EW008512 EW008579
TOXIC SUBSTANCES	(2)	EW007975 EW008014
*TRACE ANALYSIS	(1)	EW008593
TRACE METALS	(1)	EW007976
*TRACE SUBSTANCES	(1)	EW008528
*TRAINERS	(1)	EW008429

*TRAINING	(17)	EW008039	EW008272	EW008273	EW008274	EW008275	EW008276	EW008277
	EW008428	EW008429	EW008430	EW008466	EW008467	EW008552	EW008555	EW008562
	EW008566	EW008573						
*TRAINING METHODS	(15)	EW008439	EW008440	EW008441	EW008442	EW008443	EW008444	EW008445
	EW008446	EW008447	EW008448	EW008449	EW008450	EW008451	EW008452	EW008466
*TRAINING NEEDS	(2)	EW008389	EW008390					
*TRAINING PROGRAMS	(2)	EW008389	EW008390					
TRAINING PROGRAMS	(1)	EW008399						
*TRANSFER OF LEARNING	(1)	EW008429						
*TRANSPORT	(1)	EW008008						
TRANSPORTATION	(1)	EW008028						
*TRENDS	(1)	EW008489						
TRICKLING FILTERS	(1)	EW007981						
TRIHALOMETHANES	(1)	EW007989						
*TROUBLESHOOTING	(6)	EW008037	EW008395	EW008541	EW008551	EW008585	EW008604	
TURBIDITY	(1)	EW008452						
*UNITED KINGDOM	(1)	EW008572						
*UNIT PROCESSES	(1)	EW008575						
UPGRADING	(1)	EW007983						
*URBAN AREAS	(1)	EW008463						
URBAN AREAS	(1)	EW007992						
*UTILITIES	(1)	EW008542						
*VALVES	(3)	EW008257	EW008438	EW008592				
*VEGETABLES	(1)	EW007995						
*VEGETATION	(1)	EW008322						
*VERBAL INTERACTION	(1)	EW008552						
*VIRGINIA	(1)	EW008039						
*VIRUSES	(1)	EW008025						
*VOC	(1)	EW008137						
*VOLATILE SYNTHETIC ORGANIC CHEMICALS	(1)	EW008137						
*WASHINGTON	(1)	EW008280						
*WASTE DISPOSAL	(32)	EW007311	EW007312	EW007313	EW007314	EW007319	EW007949	EW007986
	EW007993	EW007994	EW007995	EW007997	EW007999	EW008000	EW008002	EW008003
	EW008004	EW008005	EW008006	EW008386	EW008387	EW008400	EW008413	EW008475

	EW008493 EW008499 EW008527 EW008529 EW008530 EW008531 EW008532 EW008544 EW008565	
WASTE DISPOSAL	(4)	EW008012 EW008026 EW008028 EW008511
WASTE HANDLING	(2)	EW008386 EW008387
WASTE HEAT UTILIZATION	(1)	EW008027
*WASTE MANAGEMENT	(4)	EW007999 EW008001 EW008006 EW008028
*WASTE RECOVERY	(2)	EW007998 EW008004
*WASTES	(3)	EW007994 EW007995 EW007997
*WASTE TREATMENT	(3)	EW007998 EW008006 EW008027
*WASTEWATER	(20)	EW007978 EW007979 EW008010 EW008439 EW008440 EW008441 EW008442 EW008443 EW008444 EW008445 EW008446 EW008447 EW008448 EW008449 EW008450 EW008451 EW008452 EW008476 EW008566 EW008567
*WASTEWATER COLLECTION	(15)	EW007315 EW007327 EW007992 EW008138 EW008408 EW008411 EW008418 EW008421 EW008422 EW008423 EW008436 EW008479 EW008486 EW008561 EW008569
*WASTEWATER DISPOSAL	(2)	EW007312 EW007316
*WASTEWATER RECOVERY	(1)	EW007996
*WASTEWATER RECYCLING	(1)	EW007996
*WASTEWATER REUSE	(2)	EW007973 EW007996
WASTEWATER REUSE	(1)	EW007993
*WASTEWATER STORAGE	(1)	EW008408
*WASTEWATER SYSTEMS	(1)	EW007326
*WASTEWATER TREATMENT	(151)	EW006563 EW007244 EW007312 EW007313 EW007314 EW007316 EW007317 EW007318 EW007319 EW007320 EW007321 EW007322 EW007323 EW007324 EW007325 EW007326 EW007332 EW007333 EW007944 EW007945 EW007947 EW007948 EW007949 EW007973 EW007980 EW007981 EW007982 EW007983 EW007984 EW007985 EW007986 EW007987 EW007988 EW007989 EW007990 EW007991 EW007992 EW007993 EW007994 EW007995 EW007996 EW007997 EW007998 EW007999 EW008000 EW008001 EW008002 EW008003 EW008004 EW008005 EW008025 EW008026 EW008037 EW008038 EW008039 EW008141 EW008281 EW008282 EW008386 EW008387 EW008389 EW008390 EW008391 EW008393 EW008394 EW008396 EW008398 EW008400 EW008405 EW008406 EW008407 EW008408 EW008410 EW008414 EW008416 EW008417 EW008421 EW008424 EW008436 EW008453 EW008454 EW008455 EW008456 EW008457 EW008458 EW008459 EW008461 EW008474 EW008475 EW008478 EW008484 EW008485 EW008486 EW008487 EW008488 EW008491 EW008492 EW008511 EW008512 EW008513 EW008517 EW008518 EW008519 EW008525 EW008533 EW008534 EW008535 EW008536 EW008538 EW008539 EW008540 EW008541 EW008542 EW008544 EW008545 EW008548 EW008558 EW008562 EW008563 EW008569 EW008570 EW008581 EW008582 EW008585 EW008586 EW008604 EW008605 EW008606 EW008607 EW008608 EW008610
WASTEWATER TREATMENT	(3)	EW008409 EW008566 EW008567
*WATER	(4)	EW007978 EW007979 EW008501 EW008502
*WATER ANALYSIS	(1)	EW007977
*WATER AUDITS	(1)	EW008576

*WATER CHARACTERISTICS	(1)	EW007977
*WATER COLLECTION	(1)	EW008403
*WATER CONSERVATION	(2)	EW007313 EW007316
*WATER CONTAMINATION	(1)	EW008494
*WATER DEMANDS	(1)	EW008589
*WATER DISTRIBUTION	(16)	EW008257 EW008401 EW008415 EW008420 EW008425 EW008432 EW008434 EW008437 EW008438 EW008480 EW008556 EW008571 EW008576 EW008577 EW008589 EW008590
*WATER INJECTION	(1)	EW008496
*WATER INTAKE	(1)	EW008537
*WATER MAINS	(1)	EW008420
*WATER MIXING	(1)	EW008587
*WATER PIPES	(7)	EW008257 EW008404 EW008420 EW008425 EW008480 EW008556 EW008590
*WATER POLLUTION	(20)	EW008007 EW008008 EW008009 EW008012 EW008013 EW008014 EW008015 EW008016 EW008017 EW008018 EW008019 EW008020 EW008021 EW008022 EW008023 EW008024 EW008029 EW008489 EW008538 EW008559
WATER POLLUTION	(2)	EW005544 EW008011
*WATER POLLUTION CONTROL	(11)	EW008165 EW008168 EW008270 EW008426 EW008493 EW008527 EW008528 EW008529 EW008530 EW008531 EW008532
*WATER PUMPS	(1)	EW008547
*WATER QUALITY	(77)	EW007973 EW007974 EW007975 EW007976 EW007977 EW007978 EW007979 EW007989 EW008006 EW008007 EW008008 EW008009 EW008010 EW008011 EW008012 EW008013 EW008015 EW008016 EW008017 EW008018 EW008019 EW008020 EW008021 EW008022 EW008023 EW008024 EW008025 EW008029 EW008137 EW008139 EW008167 EW008168 EW008169 EW008279 EW008280 EW008322 EW008383 EW008397 EW008399 EW008426 EW008427 EW008437 EW008453 EW008462 EW008463 EW008468 EW008469 EW008471 EW008472 EW008474 EW008476 EW008478 EW008489 EW008490 EW008495 EW008497 EW008498 EW008499 EW008500 EW008501 EW008502 EW008509 EW008520 EW008521 EW008526 EW008537 EW008538 EW008539 EW008559 EW008565 EW008574 EW008578 EW008579 EW008580 EW008587 EW008608 EW008609
WATER QUALITY	(11)	EW005544 EW007985 EW007998 EW007992 EW008014 EW008026 EW008140 EW008446 EW008449 EW008470 EW008503
*WATER RATES	(1)	EW008435
*WATER RECLAMATION	(1)	EW007990
*WATER RECOVERY	(1)	EW008165
*WATER RESOURCES	(27)	EW005544 EW007974 EW007975 EW007990 EW008011 EW008165 EW008166 EW008167 EW008168 EW008169 EW008270 EW008367 EW008402 EW008432 EW008468 EW008470 EW008471 EW008494 EW008509 EW008520 EW008521 EW008525 EW008537 EW008557 EW008572 EW008588 EW008609
WATER RESOURCES	(4)	EW007973 EW008006 EW008322 EW008469
*WATER REUSE	(4)	EW007312 EW007313 EW007998 EW008578

*WATERSHEDS	(2)	EW008407	EW008483					
*WATER STORAGE	(3)	EW008557	EW008564	EW008589				
*WATER SUPPLY	(46)	EW008137	EW008140	EW008165	EW008166	EW008167	EW008168	EW008169
	EW008258	EW008270	EW008280	EW008367	EW008401	EW008402	EW008404	EW008415
	EW008420	EW008425	EW008432	EW008435	EW008437	EW008438	EW008460	EW008468
	EW008470	EW008471	EW008500	EW008502	EW008509	EW008520	EW008523	EW008537
	EW008548	EW008550	EW008551	EW008556	EW008557	EW008560	EW008564	EW008571
	EW008572	EW008574	EW008576	EW008577	EW008588	EW008589	EW008590	
WATER SUPPLY	(3)	EW005544	EW008139	EW008322				
*WATER-SURE	(1)	EW008516						
*WATER SYSTEMS	(3)	EW008415	EW008420	EW008432				
*WATER TANKS	(1)	EW008564						
*WATER TREATMENT	(72)	EW006563	EW007244	EW007944	EW007947	EW007989	EW007990	EW008022
	EW008025	EW008137	EW008139	EW008140	EW008165	EW008259	EW008270	EW008279
	EW008282	EW008397	EW008399	EW008419	EW008433	EW008434	EW008439	EW008440
	EW008441	EW008442	EW008443	EW008444	EW008445	EW008446	EW008447	EW008448
	EW008449	EW008450	EW008451	EW008452	EW008460	EW008464	EW008465	EW008468
	EW008470	EW008471	EW008473	EW008477	EW008492	EW008496	EW008502	EW008503
	EW008504	EW008505	EW008506	EW008513	EW008516	EW008517	EW008524	EW008526
	EW008537	EW008541	EW008542	EW008543	EW008546	EW008549	EW008551	EW008574
	EW008575	EW008577	EW008578	EW008579	EW008580	EW008581	EW008582	EW008587
	EW008589							
*WATER USE	(3)	EW008367	EW008560	EW008576				
*WATER UTILITIES	(1)	EW008438						
*WEIRING	(1)	EW008138						
*WELL CONSTRUCTION	(1)	EW008167						
*WELLS	(1)	EW008137						
WHEY DISPOSAL	(1)	EW007997						
*WISCONSIN	(2)	EW007949	EW008518					
WISCONSIN	(1)	EW008567						
WORK ATTITUDES	(1)	EW008567						
*WORLD PROBLEMS	(1)	EW008565						